

NC MEDICAID

ANNUAL QUALITY REPORT

2018-2021

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NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**
Division of Health Benefits

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LIST OF ACRONYMS

ADHD	Attention-Deficit/Hyperactivity Disorder
AHRQ	Agency for Healthcare Research and Quality
AMH	Advanced Medical Home
AOD	Alcohol and Other Drug
BMI	Body Mass Index
BRFSS	Behavioral Risk Factor Surveillance System
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CC4C	Care Coordination for Children
CCNC	Community Care of North Carolina
CDC	Centers for Disease Control and Prevention
CHIP	Children's Health Insurance Program
CIHA	Cherokee Indian Hospital Authority
CMHRP	Care Management for High-Risk Pregnancies
COPD	Chronic Obstructive Pulmonary Disease
CY	Calendar Year
EBCI	Eastern Band of Cherokee Indians
ED	Emergency Department
FDA	U.S. Food and Drug Administration
HEDIS	Healthcare Effectiveness Data and Information Set
HMO	Health Maintenance Organization
I/DD	Intellectual/Developmental Disabilities
LME/ MCO	Local Management Entity-Managed Care Organization
MAT	Medication-Assisted Treatment
NC	North Carolina
NCDHHS	North Carolina Department of Health and Human Services
NCQA	National Committee for Quality Assurance
NQF	National Quality Forum
OB/GYN	Obstetrician Gynecologist
OSUAP	Opioid and Substance Use Action Plan
PAU	Potentially Avoidable Utilization
PCCM	Primary Care Case Management

PCP	Primary Care Provider
PDI	Pediatric Quality Indicators
PHP	Prepaid Health Plan
PIP	Performance Improvement Projects
PMH	Pregnancy Medical Home
PMP	Pregnancy Management Program
PQA	Pharmacy Quality Alliance
PQCNC	Perinatal Quality Collaborative of North Carolina
PQI	Prevention Quality Indicators
QRS	Quality Rating System
TBI	Traumatic Brain Injury

EXECUTIVE SUMMARY

NC Medicaid is pleased to present the 2022 Annual Quality Report, which assesses NC Medicaid's 2018-2021 performance on quality measures related to the three aims and associated goals identified in the NC Medicaid Managed Care Quality Strategy. NC Medicaid's vision for an innovative, whole-person, well-coordinated system of care is distilled into three central aims: **1) Better Care Delivery, 2) Healthier People and Communities, and 3) Smarter Spending.**

This report includes NC Medicaid's recent performance on select measures, both across years and compared to national medians, organized by the goals outlined in the Quality Strategy. It should be noted that the majority of NC Medicaid beneficiaries spent the first half of measurement year 2021 in traditional fee-for-service Medicaid (known as "NC Medicaid Direct") before transitioning to managed care in July of 2021. The limited data made it difficult to identify overarching trends over time. Future versions of this report will contain more detailed analysis of data trends. Additionally, the 2020 and 2021 measurement years were disrupted by the COVID-19 pandemic. Therefore, the results presented in this report should be considered with a degree of caution.

Summary of Performance

Aim 1: Better Care Delivery. Make health care more person-centered, coordinated, and accessible.

Goal 1: Ensure Appropriate Access to Care

Children

Strength: NC Medicaid performed consistently well on the *Well-Child Visits in the First 30 Months of Life* measure, meaning that the youngest beneficiaries saw their primary care provider (PCP) multiple times in their first 30 months of life. Well-child visits are an important piece of child health and wellbeing. They can track growth and developmental milestones and are often the visit where children receive scheduled vaccinations to prevent illnesses.

Growth Opportunity: NC Medicaid showed opportunity for improvement on the *Child and Adolescent Well-Care Visits* measure. Over half of members 3-11 years old saw a PCP over the last two years, but rates for all age groups (3-11, 12-17, and 18-21 years old) were below the national medians in 2021.

Strength: Parents reported high ratings (when compared to national ratings) for the specialist their child saw most often and were generally satisfied with getting needed care and getting care quickly for their children.

Adults

Strength: Adults also reported high ratings for getting the care they felt they needed.

Goal 2: Drive Patient-Centered, Whole-Person Care

Individuals with Behavioral Health Needs

NC Medicaid prioritized behavioral health as part of whole-person, integrated care. Several measures captured whether beneficiaries were getting the behavioral health care they needed.

Strength: When adolescents and adults have alcohol or other drug abuse or dependence, it is important that they receive and continue treatment. Performance on the *Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment* measure indicators was consistent with or slightly higher than national medians.

Strength: Children who are newly prescribed medication for attention-deficit/hyperactivity disorder (ADHD) should see a provider for follow up care. NC Medicaid performed above the national median on the *Follow-Up Care for Children Prescribed ADHD Medication* measure.

Area of Concern: It is important that individuals who are hospitalized for mental illness or intentional self-harm see a mental health provider after they are released from the hospital. Rates for the *Follow-up After Hospitalization for Mental Illness* measure remained consistently lower than the national median, and worsened year over year.

Aim 2: Healthier People and Communities. Improve the health of North Carolinians through prevention, better treatment of chronic conditions, and better behavioral health care.

Goal 3: Promote Wellness and Prevention

Goal 3 reflects a continuous emphasis on improving the health of women and children in North Carolina. In 2021, 84% of NC Medicaid beneficiaries were women of all ages or children 0–21 years old.¹

Vaccinations

Ensuring children and adolescents receive recommended vaccinations is the best way to protect them from a variety of vaccine-preventable diseases.²

Growth Opportunity: The percent of immunizations for children and adolescents continued to perform below national medians. For children, the influenza vaccine drives low percentages. For adolescents, low percentages are driven by the HPV vaccine.

Health Screening for Women

Health screenings for women can help find and treat diseases that can impact their long-term health.

Strength: NC Medicaid performed around the national median for the *Chlamydia Screening in Women* measure.

¹ NC Medicaid Enrollment Reports. NC Medicaid Division of Health Benefits. Accessed September 27, 2023. <https://medicaid.ncdhhs.gov/reports/nc-medicaid-enrollment-reports>

² Vaccines for Your Children. Centers for Disease Control and Prevention. Updated March 21, 2023. Accessed May 23, 2023. <https://www.cdc.gov/vaccines/parents/visit/vaccination-during-COVID-19.html>

Growth Opportunity: Both the *Breast Cancer Screening* and *Cervical Cancer Screening* measure rates were below the national medians. Performance on both measures worsened, year over year from 2018 to 2021.

Prenatal and Postpartum Care

Over half of all deliveries in North Carolina occur among NC Medicaid beneficiaries. North Carolina ranks 43 out of 50 states in infant mortality and low birth weight infants.³ Studies indicate that as many as 60% of all pregnancy-related deaths could be prevented if women had better access to prenatal health care, received higher quality care, and/or made changes in their health and lifestyle habits.⁴ Timely and adequate postpartum care can set the stage for the long-term health and well-being of new mothers and their infants.⁵ The *Prenatal and Postpartum Care* measure assesses access to prenatal and postpartum care.

Area of Concern: NC Medicaid rates for both *Prenatal and Postpartum Care* indicators fell below the national median from 2018-2021 and neither indicator demonstrated improvement over time. A significant contributor to these data may be global billing codes used by many providers that diminish the ability to capture these visits separately from other aspects of perinatal care delivery.⁶

Goal 4: Improve Chronic Condition Management

Goal 4 focuses on conditions that heavily impact the NC Medicaid population, including asthma, diabetes, behavioral health disorders, and hypertension. Managing chronic diseases can improve quality of life by preventing or minimizing the effects of a disease.⁷

Asthma

Strength: NC Medicaid performance on the *Asthma Medication Ratio* measure remained consistently higher than the national median.

Diabetes

Around 11% of NC Medicaid beneficiaries self-report having diabetes, higher than those with other health insurance or no health insurance.⁸ Hemoglobin A1c tests are used to help manage diabetes and provide critical information about blood glucose control and overall disease management.

Growth Opportunity: Almost a quarter of individuals enrolled in NC Medicaid who had diabetes did not receive a serum hemoglobin A1C (HbA1c) test and NC Medicaid's performance on the *HbA1c Testing* measure was well below the national median. The ability to access point of care A1c testing information via the Health Information Exchange (HIE) will likely increase performance in this area.

³ *Percentage of Babies Born Low Birthweight By State*. CDC. Accessed July 25, 2023. https://www.cdc.gov/nchs/pressroom/sosmap/lbw_births/lbw.htm

⁴ *Building U.S. Capacity to Review and Prevent Maternal Deaths. Report from nine maternal mortality review committees*. 2018. Accessed May 23, 2023. <https://www.cdcfoundation.org/sites/default/files/files/ReportfromNineMMRCs.pdf>

⁵ *American College of Obstetricians and Gynecologists. ACOG Committee Opinion No. 736. Obstet Gynecol. 2018; 131(e): 140-150.*

⁶ *Prenatal and postpartum related services are often recorded using global billing codes. Global billing allows multiple services provided by a single entity to be billed using a single code. A global obstetric code may include antepartum care, labor and delivery, and postpartum care. These codes are not billed until the end of the pregnancy, meaning the first instance of prenatal care and subsequent postpartum care are often not adequately captured in claims and encounters data. This lack of administrative data is likely a main driver of the low performance on prenatal and postpartum care for NC Medicaid.* North Carolina Department of Health and Human Services is currently working with NC Medicaid providers and health plans to devise a solution that will improve data capture for this measure.

⁷ *Chronic disease management*. HealthCare.gov. Accessed May 23, 2023. <https://www.healthcare.gov/glossary/chronic-disease-management>

⁸ *BRFSS Report: Medicaid, Final 2021*. North Carolina Department of Health and Human Services. Accessed May 23, 2023. <https://schs.dph.ncdhhs.gov/data/brfss/medicaid/docs/Medicaid-2021-TABLES-FINAL.pdf>

Goal 5: Work with Communities to Improve Population Health

Goal 5 emphasizes areas where community engagement is critical to advancing a high-quality health system. This includes meeting unmet health-related resource needs, combating the opioid epidemic, and addressing health disparities.

Opioid Use

Strength: The *Concurrent Use of Prescription Opioids and Benzodiazepines* measure favorably declined year over year from 2018. Concurrent use of these prescriptions is linked to an increased risk of morbidity and mortality.⁹

Smoking and Tobacco Use

Over 30% of NC Medicaid beneficiaries are current smokers, higher than those without insurance and nearly two times those with other health insurance.¹⁰

Strength: Medical assistance with smoking and tobacco use cessation is higher than the national median for NC Medicaid beneficiaries.

Nutrition and Physical Activity

In 2021, nearly 66% of adult NC Medicaid beneficiaries were either overweight or obese.¹¹ Childhood obesity has both immediate and long-term effects on health and well-being.¹²

Growth Opportunity: The *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents* measure reflects whether doctors are documenting body mass index (BMI), counseling for nutrition, and counseling for physical activity for children and adolescents. Performance was below the national median and declined from 2020 to 2021 on all three indicators.

Aim 3: Smarter Spending. Pay for value rather than volume, incentivize innovation, and ensure appropriate care.

Goal 6: Pay for Value

Goal 6 focuses on ensuring high-value, appropriate care. Prevention Quality Indicators (PQI) help identify hospital admissions that might have been avoided through access to high-quality outpatient care. Pediatric Quality Indicators (PDI) focus on potentially preventable complications and hospital events for pediatric patients.¹³ Performance on key PQI and PDI measures was mixed.

Strength: Adult measures showed favorable declines in admission rates for all medical conditions

Growth Opportunity: Pediatric rates did not improve in 2021 when compared to 2020.

⁹ FDA warns about serious risks and death when combining opioid pain or cough medicines with benzodiazepines; requires its strongest warning. US Food and Drug Administration. August 31, 2016. Accessed May 23, 2023. <https://www.fda.gov/media/99761/download>

¹⁰ BRFSS Report: Medicaid, Final 2021. North Carolina Department of Health and Human Services. Accessed July 25, 2023. <https://schs.dph.ncdhhs.gov/data/brfss/medicaid/docs/Medicaid-2021-TABLES-FINAL.pdf>

¹¹ BRFSS Report: Medicaid, Final 2021. North Carolina Department of Health and Human Services. Accessed July 25, 2023. <https://schs.dph.ncdhhs.gov/data/brfss/medicaid/docs/Medicaid-2021-TABLES-FINAL.pdf>

¹² What are the Complications of Childhood Obesity? Childhood Obesity Foundation. Updated December 2019. Accessed May 23, 2023. <https://childhoodobesityfoundation.ca/what-is-childhood-obesity/complications-childhood-obesity/>

¹³ PQI and PDI measures are developed by the Agency for Healthcare and Research Quality.

Achievements

NC Medicaid realized several achievements in its quality improvement efforts. Central to NC Medicaid's effort to improve quality and care delivery is a commitment to health equity and to address the social and environmental factors that directly impact health outcomes and cost. Helping beneficiaries and providers respond to COVID-19 has been a North Carolina Department of Health and Human Services (NCDHHS) priority since the onset of the pandemic. In addition to public health emergency-related activities, NC Medicaid has continued a wide range of initiatives to offer expanded and better care and improve beneficiary and provider experiences. Among these achievements NC Medicaid has:

- Launched NC Medicaid Managed Care, transitioning over 1.7 million beneficiaries to five Standard Plans in July 2021.
- Continued preparations to launch Tailored Plans, which will provide NC Medicaid Managed Care and additional specialized services for individuals with significant behavioral health conditions, intellectual/developmental disabilities (I/DD), and traumatic brain injury (TBI).
- Implemented the Healthy Opportunities Pilots, a first in the nation, to provide a wide array of evidence-based, non-medical interventions related to housing, food, transportation, and interpersonal safety to bridge gaps in social and economic factors and provide a pathway for high-quality, impactful care.
- Prepared to implement North Carolina Integrated Care for Kids (InCK), a new model aimed at improving the way children and families receive care and support services, which launched in 2022.
- Initiated new coverage to provide extended postpartum care for 12 months.
- Received the 2022 Medicaid Innovation Award for its work in improving access to care, specifically for the development of a maternal/perinatal telehealth policy during the COVID-19 pandemic.

INTRODUCTION

About NC Medicaid

NC Medicaid provides critical health insurance coverage for many individuals and families with low incomes and supports medically fragile children, people with severe mental illness, and those in adult care homes and nursing homes. NC Medicaid helps pay for certain medical expenses including (but not limited to): doctor bills, hospital bills, prescriptions, nursing home care, and behavioral health care.

Medicaid is administered by states, according to federal requirements. The program is funded jointly by states and the federal government. As of 2023, NC Medicaid supports the health and wellbeing of more than 2.9 million North Carolinians. More up-to-date information on NC Medicaid enrollment can be found on the [NCDHHS Enrollment Dashboard](#).

A majority of NC Medicaid beneficiaries are enrolled in NC Medicaid Managed Care. This health care delivery system means that the state contracts with insurance companies, which are paid a fixed annual fee per enrolled person to cover their healthcare services. This transition started in July of 2021 with the launch of Standard Plans. However, some beneficiaries remain in traditional Medicaid, called NC Medicaid Direct.¹⁴

Vision

To improve the health of North Carolinians through an innovative, whole-person centered, and well-coordinated system of care that addresses both the medical and non-medical drivers of health.

¹⁴For more information on North Carolina's transformation to NC Medicaid managed care, see: <https://medicaid.ncdhhs.gov/transformation>

Health Care Programs

Type	Population Served	Description
Standard Plans 	Most Medicaid beneficiaries, including those with low to moderate intensity behavioral health needs.	Provides integrated physical health, pharmacy, care coordination, and basic behavioral health services. Launched on July 1, 2021
Eastern Band of Cherokee Indians (EBCI) Tribal Option 	Federally recognized tribal members and others who qualify for services through Indian Health Service (IHS) that live in the following counties: Buncombe, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, Swain, Transylvania.	A primary care case management entity created by the Cherokee Indian Hospital Authority (CIHA) that provides care coordination and management of medical, behavioral health, pharmacy, and support services. Launched on July 1, 2021.
Tailored Plans 	Members with significant mental health needs, severe substance use disorders, I/DDs or TBIs.	Will offer the same integrated health services as Standard Plans but also provides enhanced I/DD, TBI, and behavioral health services. ¹⁵ A projected launch date is to be determined.
NC Medicaid Direct 	Beneficiaries who are not enrolled in managed care health plans. ¹⁶	The new name for the traditional Medicaid fee-for-service program. Provides care management for physical health services through Community Care of North Carolina (CCNC) and care coordination for behavioral health, I/DD, or TBI through six Local Management Entity-Managed Care Organizations (LME/MCOs). Offers certain services that Standard Plans do not.

Quality Vision

NC Medicaid is committed to advancing high-value care, improving population health, engaging and supporting beneficiaries and providers, promoting health equity, and establishing a sustainable program with predictable costs. Two foundational documents provide information on the NCDHHS' quality vision and how it will be implemented in managed care:

1. The [NC Medicaid Managed Care Quality Strategy \(the Quality Strategy\)](#).
2. The [NC Medicaid Managed Care Quality Measurement Technical Specifications Manual \(the Tech Specs\)](#).

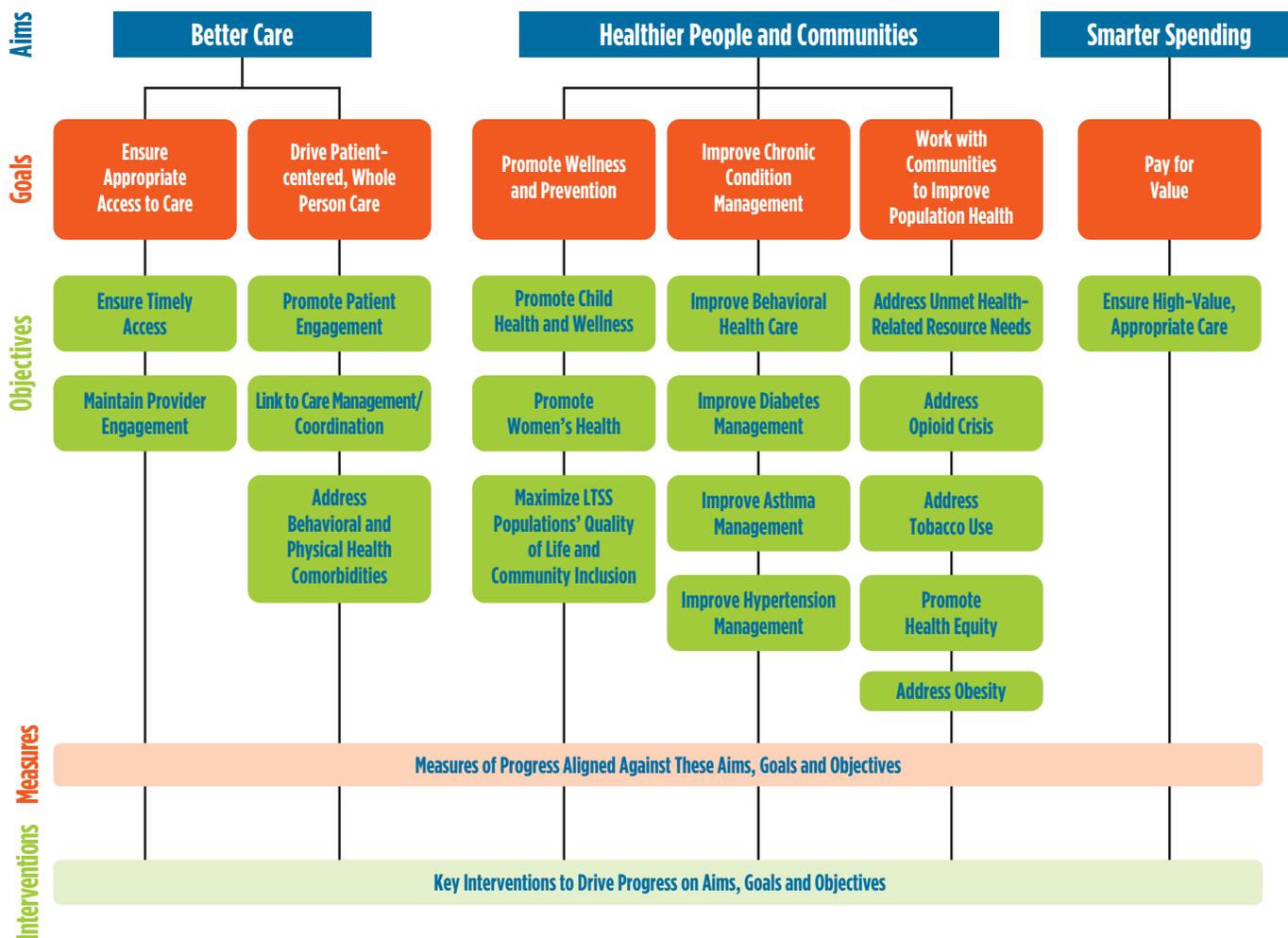
¹⁵ Behavioral health services = mental health disorder and substance use disorder services.

¹⁶ In this document, references to "health plans" include Prepaid Health Plans/Standard Plans.

The Quality Strategy

The Quality Strategy, first published in 2018 and most recently updated in 2023, details NC Medicaid Managed Care’s aims, goals, and objectives for quality management and improvement and details specific quality improvement initiatives that are priorities for the NCDHHS. The Quality Strategy includes a framework reflecting the NCDHHS’ commitment to three broad aims. As depicted in Figure 1, a series of goals and objectives is included with each aim, highlighting key areas of expected progress and quality focus.

Figure 1. Overview of the Quality Strategy Framework



NC Medicaid’s Quality Strategy goals are aligned with key NCDHHS initiatives including the [Opioid Action Plan](#), the [Early Childhood Action Plan](#), the [Perinatal Health Strategic Plan](#), and [Healthy North Carolina 2030](#) to support a unified approach to improvement.

The Tech Specs

The Tech Specs detail how the NCDHHS will ensure health plans are delivering high-quality health care to meet the goals set forth in the Quality Strategy. The Tech Specs outline the NCDHHS' vision for advancing quality via NC Medicaid Managed Care and the strategy for measuring plan performance and promoting continuous quality improvement. It also includes technical specifications for all quality measures that health plans are required to report and those that the NCDHHS is responsible for calculating. The document is updated annually to reflect changes in NCDHHS priorities, measure technical specifications, and best practices.

A key objective in the Quality Strategy is to reduce health disparities and promote health equity. NC Medicaid currently stratifies quality measures by race, ethnicity, geography, gender, age, primary language, and disability to determine if there are significant differences or disparities among groups. NC Medicaid monitors stratified data to identify disparities, and, based on data over time, develops targeted quality improvement interventions and/or strategies to promote health equity. NC Medicaid is finalizing a Health Equity Report that will provide more information about NC Medicaid's efforts to close gaps in quality performance among population subgroups.¹⁷

¹⁷This report will be published on NCDHHS Quality Management and Improvement page here: <https://medicaid.ncdhhs.gov/quality-management-and-improvement>

METHODOLOGY

The quality measures in this report are selected from national health care industry performance measures.¹⁸ Sources include:

1. The Healthcare Effectiveness Data and Information Set (HEDIS®), a widely used set of performance measures developed and maintained by the National Committee for Quality Assurance (NCQA).
2. Core sets of health care quality measures for children enrolled in Medicaid and the Children’s Health Insurance Program (CHIP) (the Child Core Set) and for adults enrolled in Medicaid (the Adult Core Set), which are developed and maintained by the Center for Medicaid and CHIP Services.
3. Measures of patient experience with health care, collected through the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) program established by the Agency for Healthcare Research and Quality (AHRQ).
4. Public health measures developed and maintained by AHRQ, the Centers for Disease Control and Prevention (CDC), Pharmacy Quality Alliance (PQA), and other state public health sources.

Measures selected from HEDIS will be referred to as HEDIS measures and those selected from other sources as non-HEDIS measures. Measures are organized based on the goal they reflect; some measures are associated with more than one goal and may be listed in multiple tables. For a full list of the quality measures used in this report, see Appendix A.

Data Sources

In alignment with the technical specifications for the quality measures, several data sources were used to calculate the performance rates associated with each measure. Most measures in this report are calculated from Medicaid fee-for-service claims and managed care encounters and include populations that received services during Calendar Years (CY) 2018 through 2021. Other data sources include the CAHPS survey, CDC’s Behavioral Risk Factor Surveillance System (BRFSS), and state and national registries.

What is a Quality Measure?

Quality measures are tools that help quantify healthcare processes, outcomes, patient perceptions, and organizational structure and/or systems that are associated with the ability to provide high-quality health care and/or that relate to one or more quality goals for health care.

Quality measures help identify successes and opportunities, so that NC Medicaid and the health plans can prioritize efforts to achieve better outcomes for enrollees. This report will display quality measure names in italics.

¹⁸Quality Measures. Centers for Medicare & Medicaid Services. Updated April 14, 2022. Accessed May 23, 2023. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures>.

Where available, NCQA's Quality Compass data are used to compare North Carolina's Performance in 2021 to the national Medicaid Health Maintenance Organization (HMO) median (50th percentile). Quality Compass calculates national percentile benchmarks for Medicaid health plans, which provide a way to determine how North Carolina compares to the rest of the nation's Medicaid health plans.¹⁹ This information is provided as a tool for examining quality improvement and benchmarking plan performance.

What is a median?

The median, or 50th percentile, is the number that is in the middle of all of the rates: 50% of health plans performed above this rate, and 50% of health plans performed below this rate.

How to Read Performance Rates

Due to proprietary restrictions on the publication of Quality Compass national rates, North Carolina's performance against the national median is displayed with one-, two- and three-star indicators.²⁰ North Carolina's performance against national rates is indicated as follows:

	Strong Performance. North Carolina's 2021 performance was greater than or equal to the national Medicaid HMO 66.67th percentile.
	Average Performance. North Carolina's 2021 performance was greater than or equal to the national Medicaid HMO 33.33rd percentile but less than the 66.67th percentile.
	Low Performance. North Carolina's 2021 performance was less than the national Medicaid HMO 33.33rd percentile.
N/A	Indicates national benchmarks are not available.

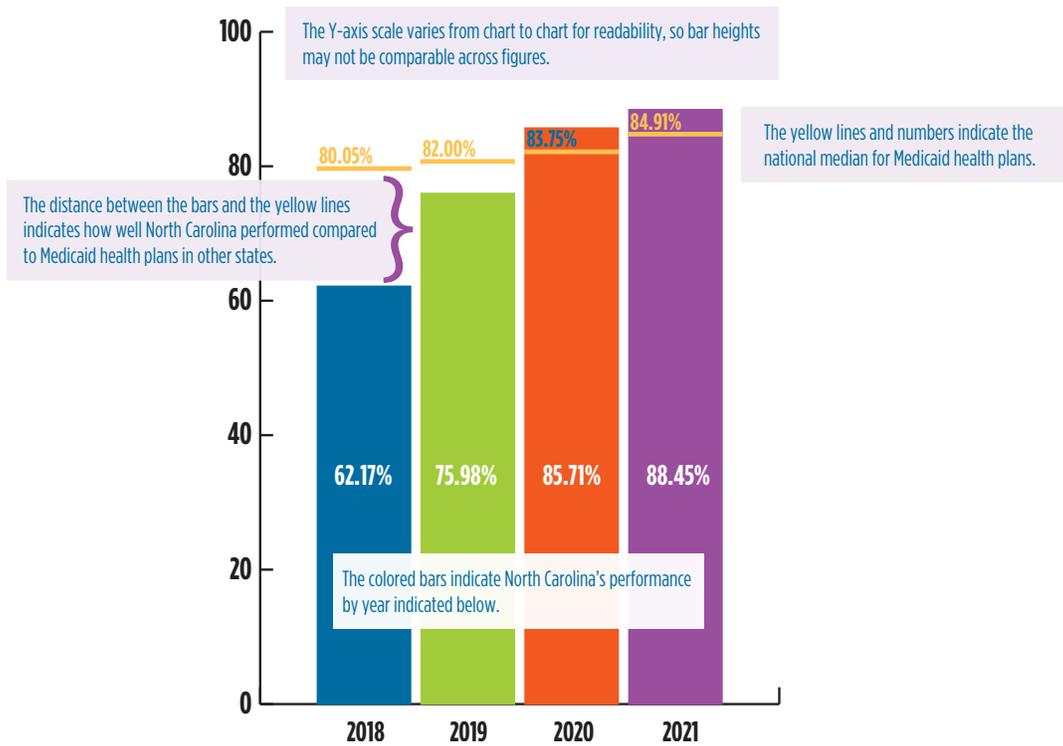
¹⁹Quality Compass provides national 5th, 10, 25th, 33.33rd, 50th, 66.67th, 75th, 90th, and 95th percentiles.

²⁰North Carolina Department of Health and Human Services has chosen to use an icon-based approach because Quality Compass only allows for the publication of precise numbers for 15 measures. The 15 measures for which the North Carolina Department of Health and Human Services has chosen to publish national medians are strategically placed in figures and tables throughout the document.

How to Read the Charts in this Report

This report contains charts depicting NC Medicaid's performance on select measures of care, quality, and utilization in CY 2018, 2019, 2020 and 2021 as compared to the performance of other states' Medicaid health plans.²¹ Figure 2 explains the elements of each chart and how they are used to interpret NC Medicaid's performance.

Figure 2. Example Chart



Throughout the report you will see a hyperlink icon ([🔗](#)). This links you to additional information. The icon also appears after performance measure names. Clicking the icon will forward you to Appendix A, which provides more detailed descriptions of each measure.

²¹Quality Compass provides national 5th, 10, 25th, 33.33rd, 50th, 66.67th, 75th, 90th, and 95th percentiles.

RESULTS

This section presents figures and tables to demonstrate North Carolina's 2018 through 2021 performance on measures aligned with the goals associated with each of the Quality Strategy's central aims. Each figure and table are accompanied by a discussion of performance and, where applicable, implications for NC Medicaid.

The 2021 rates are compared to national Medicaid medians. While comparisons to national medians are useful for assessing areas where North Carolina excels and areas where improvement is needed, it should be noted that performance can vary for reasons that are not related to care delivery. These reasons may include differences in data collection practices, methodology for documenting discrete data fields in electronic health records, and inconsistencies in billing documentation. This is why the NCDHHS' targeting methodology will be moving to a focus on relative improvement over North Carolina's prior year performance and not performance against national medians. This approach ensures that North Carolina is improving year over year, independent of external comparisons.

For some measures, data for some years may not be available. This can be due to changes in the way the data were collected or the technical specifications of the measure. If historic data should not be compared because of changes to the measure, the data is not reported in the figure or table.

Work to Improve Data Collection for Clinical Quality Measures

The NCDHHS is actively working with the state's designated HIE, NC HealthConnex, to create a clinical data conduit for NC Medicaid Managed Care. Through NC HealthConnex, the NCDHHS envisions that Standard Plans and Tailored Plans will access clinical data needed for quality measurement instead of collecting data directly from providers. This will significantly reduce providers' workloads as they will only need to adhere to existing requirements to submit clinical data to NC HealthConnex, rather than reporting clinical data to multiple managed care plans and to the NCDHHS. NC HealthConnex data will be used to improve the NCDHHS' understanding of specific care needs, such as maternal care pathways, and to identify risk factors for poor maternal and birth outcomes, such as maternal mortality, low birth weight, and infant mortality. This data will also provide insight into health outcomes, allowing NC Medicaid to monitor whether beneficiaries with hypertension or diabetes have their conditions adequately controlled. Additionally, NC HealthConnex will serve as a central point for providers and plans to access beneficiaries' clinical records, particularly during transitions in care, to ensure that beneficiaries do not have interruptions in essential services.

Aim 1: Better Care Delivery

Goal 1: Ensure Appropriate Access to Care

One of the NCDHHS' goals for NC Medicaid Managed Care is to ensure appropriate access to health care services. Access to care is essential to promote and maintain health, manage and prevent disease, and promote health equity. Access to primary care helps ensure enrollees have an appropriate point of entry for screening, treatment, and preventive services and can help direct patients to the appropriate level of care, reducing unnecessary emergency department (ED) utilization.²²

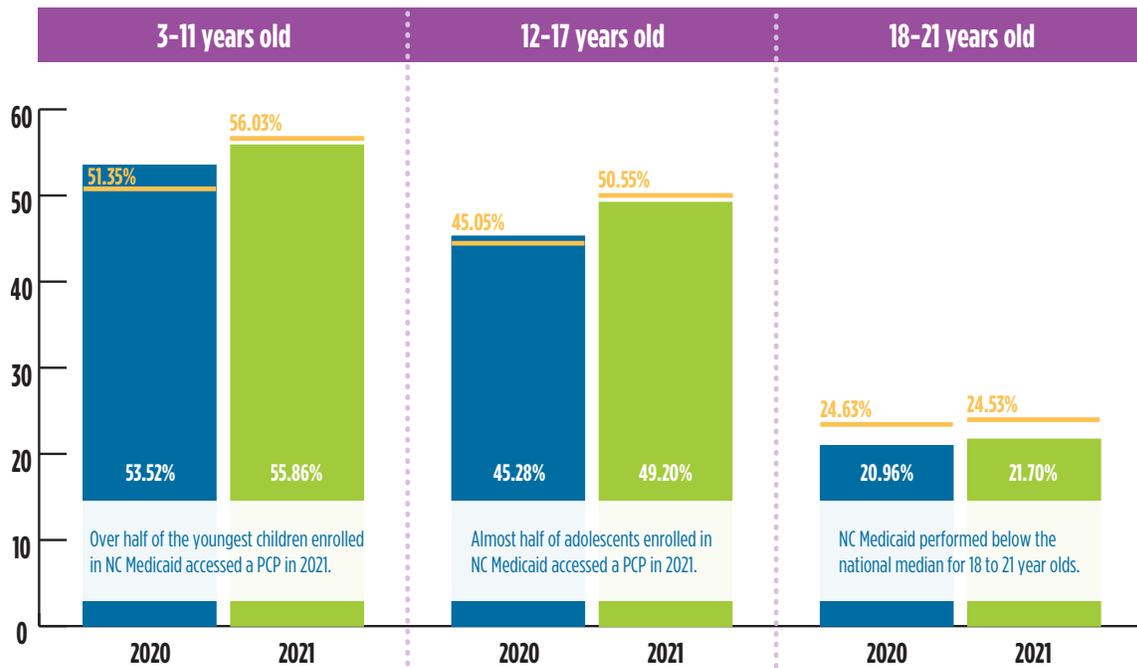
²²Basu S, Phillips RS. Reduced Emergency Department Utilization after Increased Access to Primary Care. *PLoS Med.* 2016;13(9):e1002114. doi:10.1371/journal.pmed.1002114

Access for Children and Adolescents

Access to primary care is particularly important for children and adolescents. Well visits allow providers to monitor growth and development at recommended intervals and ensure opportunities for immunizations, anticipatory guidance, and age-appropriate screenings. Charts 1 through 3 highlight NC Medicaid's performance on children and adolescents' access to primary care and well visits. Because children and adolescents' access to care was measured differently in 2018 and 2019, only 2020 and 2021 rates are displayed. Charts 1-3 assess the extent to which children receive the age-appropriate number of well-child visits with a PCP or obstetrician gynecologist OB/GYN.²³

As noted in Chart 1, NC Medicaid was closely aligned with national performance on measures of access to primary care for the pediatric and adolescent populations. However, access to primary care for 18- 21-year-old enrollees remained slightly below the national median, which underscores the importance of continued focus on access to care in this age group.

Chart 1. Percent of children and adolescents who had at least one visit with a PCP or OB/GYN during 2020 and 2021 (*Child and Adolescent Well-Care Visits*) [↗](#)



²³Measure changed in HEDIS measurement year 2020 to combine two previous measures: Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life and Adolescent Well-Care Visits. Therefore, only 2020 and 2021 rates are displayed.

As shown in Chart 2, the percent of youngest NC Medicaid beneficiaries (0-15 months) that had the recommended number of well-child visits exceeded national median performance. However, performance for beneficiaries 15-30 months was not as strong, as shown in Chart 3.

Chart 2. Percent of children that had at least six well-child visits with a PCP during their first 15 months of life (*Well-Child Visits in the First 30 Months of Life— First 15 Months: 6 or More Well-Child Visits*)

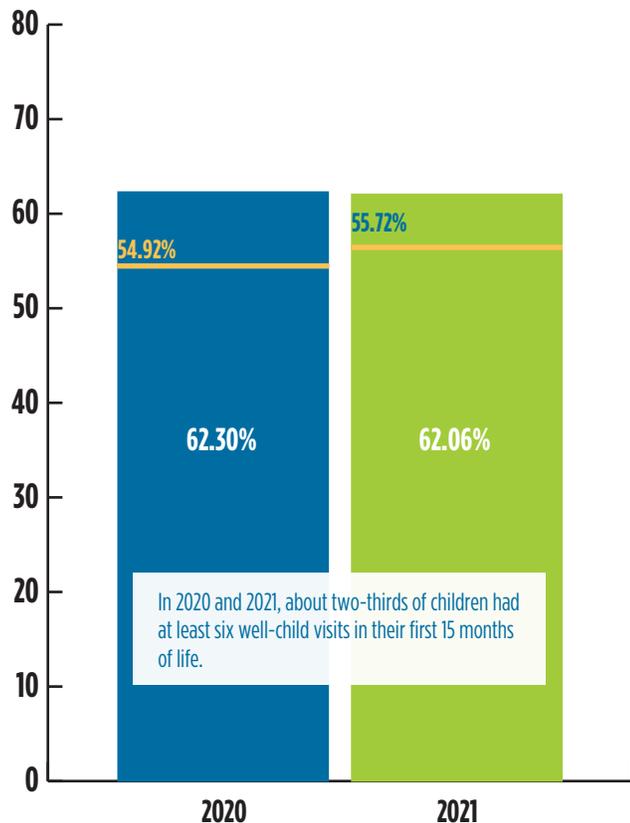
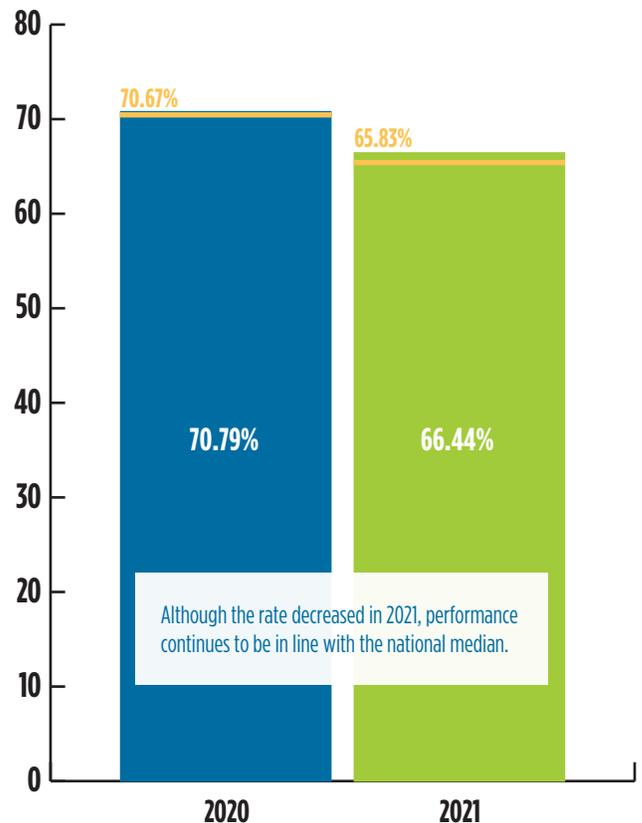


Chart 3. Percent of children who turned 30 months old during the measurement year that had at least two well-child visits with a PCP during the last 15 months (*Well-Child Visits in the First 30 Months of Life— Age 15 Months–30 Months: 2 or More Well-Child Visits*)



Consumer Assessment of Healthcare Providers and Systems (CAHPS®)

CAHPS surveys provide information about beneficiaries’ experience and satisfaction with various facets of their health care.

Rates in Chart 4 (see below) for *Rating of All Health Care*, *Getting Needed Care*, and *Getting Care Quickly* are based on the CAHPS survey of NC Medicaid adult beneficiaries. The rates for these measures represent the percent of adult respondents with positive survey responses.²⁴

²⁴Positive survey responses include respondents who:

- Provided a rating of 8, 9, or 10 when asked to rate experience on a scale of 0 (worst) to 10 (best) for *Rating of All Health Care*
- Responded “Always” or “Usually” for *Getting Needed Care* and *Getting Care Quickly*.

Chart 4. Percent of adult respondents with positive experience ratings

Results demonstrated that a majority of adult respondents indicated positive responses when rating all of their health care in the last six months. Over 80% of respondents felt they could get the care they needed and get care quickly.

Rates in Chart 5 (see below) for *Rating of All Health*, *Getting Needed Care*, and *Getting Care Quickly* are based on the CAHPS survey of NC Medicaid child beneficiaries. The rates for these measures represent the percent of child respondents with positive survey responses.

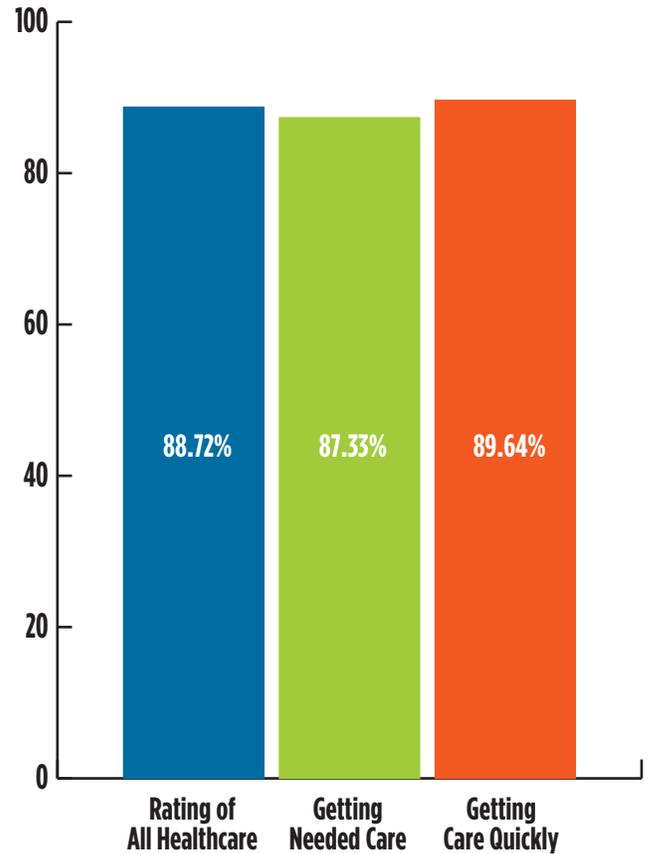
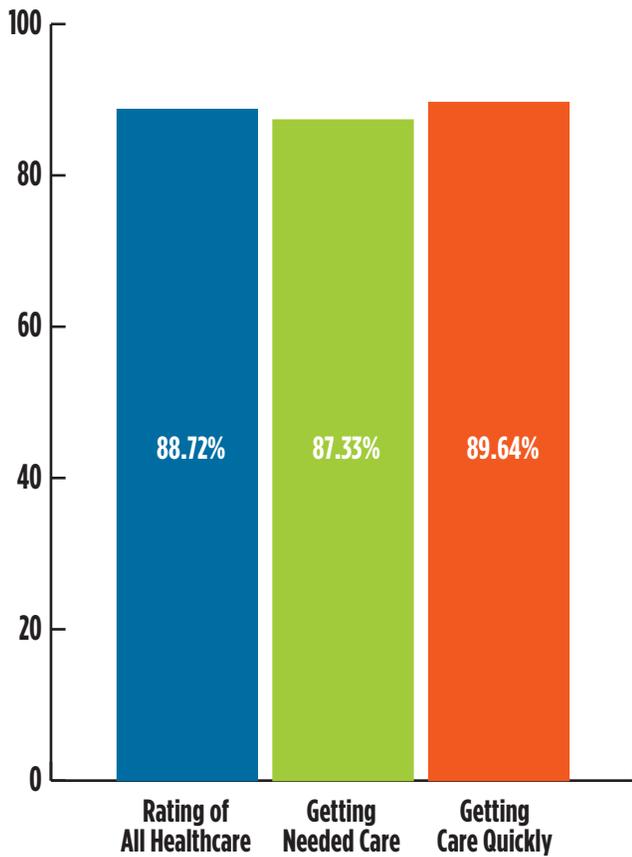


Chart 5. Percent of child respondents with positive experience ratings



Results demonstrated that a majority of respondents indicated positive responses when rating all of their child's health care in the last six months. Nearly 90% of respondents felt they could get the care their child needed and their child could get care quickly.

Full CAHPS results were published in the [2021 Consumer Assessment of Healthcare Providers and Systems report](#).

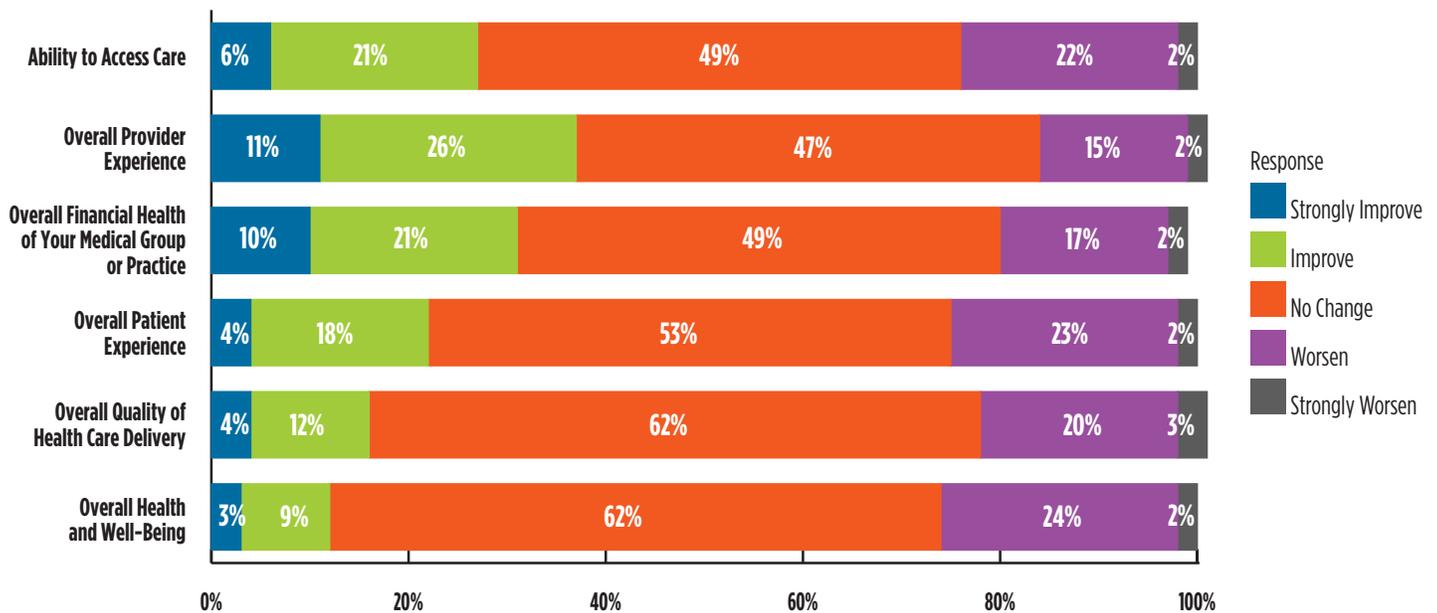
Provider Experience Survey

Key to ensuring access for beneficiaries is understanding providers' experience with the NC Medicaid system. As part of a larger multi-year evaluation of the state's transformation to managed care, NC Medicaid worked with the Cecil G. Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill, to administer a provider experience survey to organizations providing primary care and/or OB/GYN services to NC Medicaid patients in North Carolina. The first-year survey provides a baseline.

The survey asked independent primary care practices, medical groups, and health systems that provide primary care of OB/GYN care to rate their experience with NC Medicaid prior to managed care and found that they were generally satisfied. The organizations were also asked to rate their satisfaction interacting with health plans thus far. A majority of respondents rated their satisfaction as good or excellent, although narrative comments reported a wide array of experiences with the transition, ranging from largely ambivalent to hopeful. NC Medicaid will continue to survey practices and health systems on an annual basis to assess their experience and satisfaction with the NC Medicaid system.

Chart 6 displays the distribution of respondent ratings regarding how PHPs have affected various aspects of health care delivery in North Carolina.

Chart 6. Distribution of Provider Respondent Ratings Regarding How PHPs Have Affected Various Aspects of Health Care Delivery in NC²⁵



Full results were published in the [2022 Medicaid Provider Experience Survey](#).

Summary of Performance for Goal 1

NC Medicaid quality measures related to ensuring appropriate access to care and their associated performance are listed in Table 1. Trends in performance are discussed in the preceding pages. For a more detailed description of each measure included in the table, see [Appendix A](#).

²⁵<https://medicaid.ncdhhs.gov/medicaid-transformation-provider-experience-survey-2022-full-report/download?attachment>

Table 1: Summary of Performance for Goal 1 – Ensure Appropriate Access to Care

Measure Name	2018 Rates %	2019 Rates %	2020 Rates %	2021 Rates %	Comparison to 2022 National Median
Child and Adolescent Well-Care Visits²⁶	–	–	45.62	47.80	★
Well-Child Visits in the First 30 Months of Life: First 15 Months: 6 or More Well-Child Visits²⁷	–	–	62.30	62.06	★★★
Well-Child Visits in the First 30 Months of Life: Age 15–30 Months: 2 or More Well-Child Visits	–	–	70.79	66.44	★★
Child Consumer Satisfaction²⁸					
Customer Service	89.20	81.00	–	85.90	★
Getting Care Quickly	87.90	93.90	–	89.60	★★
Getting Needed Care	87.20	89.00	–	87.30	★★
Rating of All Health Care	87.20	87.80	–	88.70	★★
Rating of Specialist Seen Most Often	88.90	80.00	–	90.30	★★★
Adult Consumer Satisfaction²⁹					
Customer Service	89.80	83.30	–	86.50	★
Getting Care Quickly	84.20	80.80	–	82.70	★★
Getting Needed Care	83.00	82.00	–	85.30	★★★
Rating of All Health Care	70.80	73.60	–	72.60	★
Rating of Specialist Seen Most Often	78.70	83.50	–	79.20	★

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Goal 2: Drive Patient-centered, Whole-person Care

NC Medicaid has focused on the integration of behavioral and physical health care through the promotion of adolescent, maternal, and social/emotional screenings and increasing provider support for the appropriate management of depression and other behavioral health conditions. Objectives related to Goal 2 seek to ensure that beneficiaries are engaged in their health care and are satisfied with their managed care plan, in addition to ensuring that they are linked to an [Advanced Medical Home \(AMH\)²⁹](#), or an entity that provides tailored care management, as appropriate.

²⁶Measure changed in HEDIS measurement year 2020 to combine two previous measures: Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life and Adolescent Well-Care Visits.

²⁷Measure changed from Well-Child Visits in the First 15 Months of Life to Well-Child Visits in the First 30 Months of Life in HEDIS measurement year 2020.

²⁸Due to the COVID-19 pandemic, CAHPS was not fielded in 2020. As such, there are no 2020 CAHPS data used for comparison in this report.

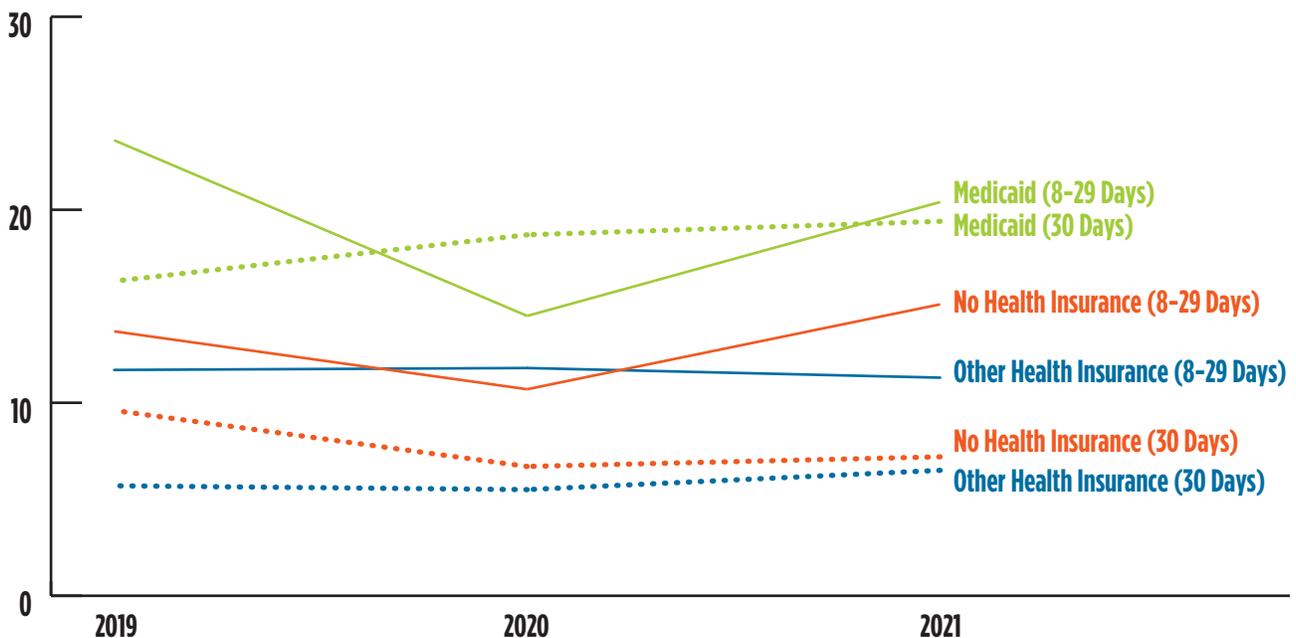
²⁹An AMH is the primary vehicle for delivering care management as the state transitions to NC Medicaid Managed Care. In the AMH program, prepaid health plans delegate certain care management functions to AMHs. AMH practices have the responsibility for population health and total cost of care, using a patient-centered, culturally appropriate, and team-based approach.

Coordinated, Whole-person Care

Through the transformation of its Medicaid delivery system, the NCDHHS seeks to advance a coordinated, whole-person system of care across all delivery models. Individuals with behavioral health needs often have comorbid physical conditions requiring medical care. Clinical evidence and best practices from other states suggest integration and coordination of physical and behavioral health care can significantly improve the quality of care received.³⁰

As the data in Chart 7 suggests, NC Medicaid beneficiaries reported more “Poor Mental Health Days” than other groups, including those with no health insurance. This highlights the need to focus on mental health services related to issues such as stress and depression.

Chart 7. Poor mental health days by insurance type³¹



This chart illustrates, by insurance type, the estimated percent of North Carolina adults that reported poor mental health days per month from 2019-2021. The estimates are based on respondents who answered either 8-29 days or 30 days to the BRFSS question – ‘Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?’ Lower percentages are better on this measure.

³⁰ Hwang et al. Effects of integrated delivery system on cost and quality. *Am J Managed Care*. 2013;19(5):e175-e184.

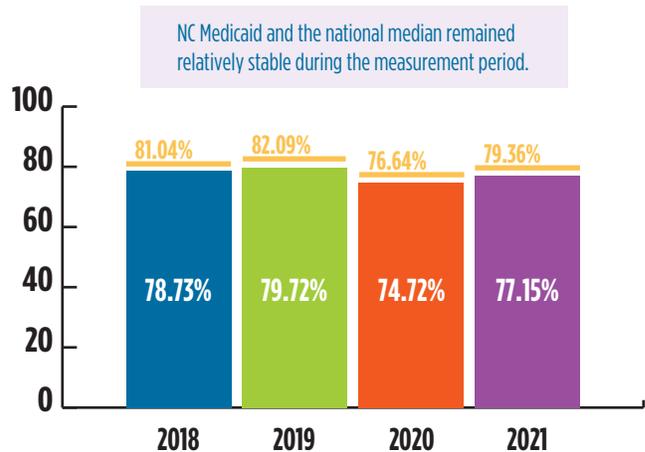
³¹ BRFSS Data for Adults in North Carolina Enrolled in Medicaid. North Carolina Department of Health and Human Services. Updated: September 30, 2022. Accessed May 23, 2023. <https://schs.dph.ncdhhs.gov/data/brfss/medicaid>. Data prior to 2019 is not displayed as BRFSS revised its categories in 2019.

Diabetes and Schizophrenia

In 2021, 11% of adults enrolled in NC Medicaid were diagnosed with diabetes compared to 9% of North Carolina adults with other health insurance.³² The prevalence of diabetes is higher among individuals with schizophrenia or bipolar disorder. Antipsychotic treatments for schizophrenia and bipolar disorder can impair glucose regulation, increasing the risk of developing diabetes or worsening glycemic control for current diabetics.³³ Given this increased risk, regular diabetes screening and metabolic monitoring for individuals with schizophrenia or bipolar disorder is particularly important.

NC Medicaid's performance on diabetes screening for this population was close to the national median across all four years (see Chart 8).

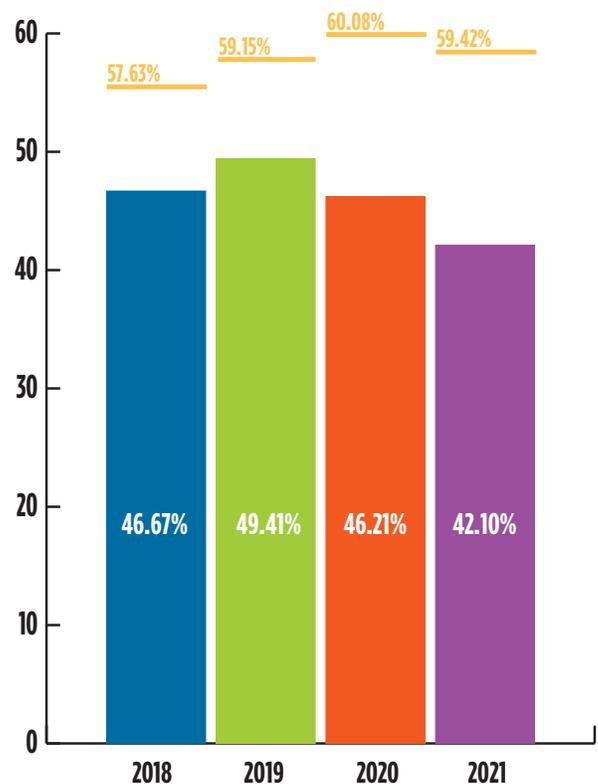
Chart 8. Percent of 18- 64-year-olds in NC Medicaid with schizophrenia or bipolar disorder who were dispensed an antipsychotic medication and received a diabetes screening during the measurement year (*Diabetes Screening for People with Schizophrenia or Bipolar Disorder*) 



Timely Care for Mental Health and Substance Use Disorders

For individuals hospitalized for mental illness, follow-up services are critical in monitoring mental well-being, detecting potential medication problems, and preventing readmissions. NC Medicaid's performance on provision of follow-up services was below the national median (see Chart 9).

Chart 9. Percent of beneficiaries six years and older who were hospitalized for treatment of mental illness and received a follow-up visit with a mental health practitioner within thirty days of discharge (*Follow-up After Hospitalization for Mental Illness: 30-Day Follow-up*) 



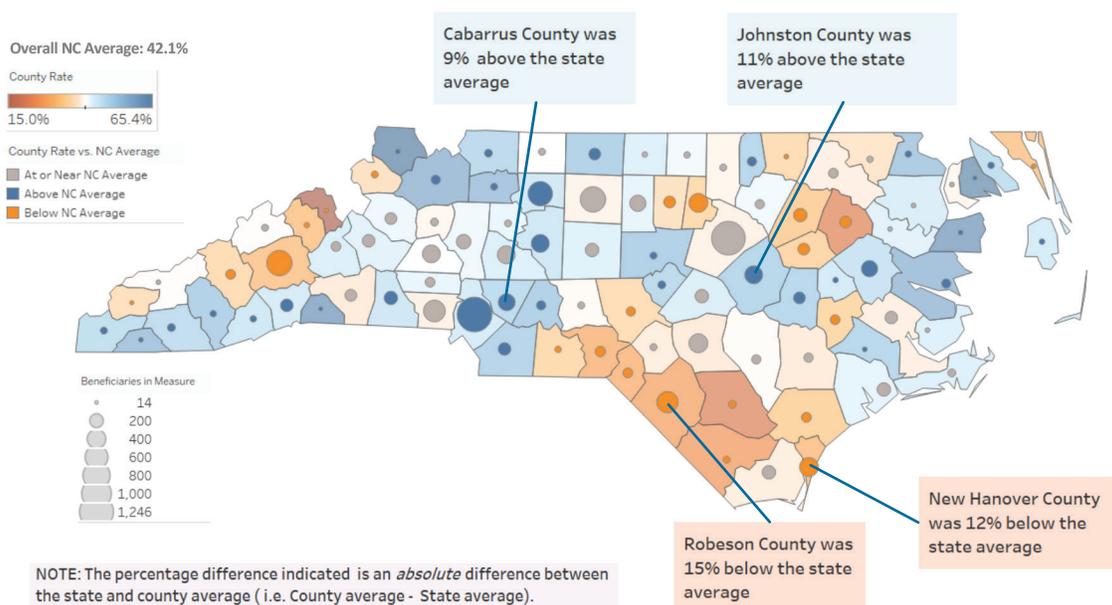
³²BRFSS Report: Medicaid, Final 2021. North Carolina Department of Health and Human Services. Accessed May 23, 2023. <https://schs.dph.ncdhhs.gov/data/brfss/medicaid/docs/Medicaid-2021-TABLES-FINAL.pdf>

³³Newcomer JW et al. Abnormalities in Glucose Regulation During Antipsychotic Treatment of Schizophrenia. *Arch Gen Psychiatry*. 2002;59(4):337-345. doi:10.1001/archpsyc.59.4.33

By stratifying performance by county, key areas are identified for targeted analysis and intervention. The shading on Map 1 represents counties' 2021 rates for *Follow-up After Hospitalization for Mental Illness: 30-Day Follow-up*, with orange indicating lower rates of follow-up and blue indicating higher rates. Dot size represents the number of NC Medicaid beneficiaries in the counties' denominator for the measure. Information for counties with 10 or fewer beneficiaries represented in the measure has been suppressed. Suppressed counties have been removed from the map.

As indicated on the map, there were significant geographic differences in the percent of beneficiaries who received a follow-up visit with a mental health practitioner within 30 days of discharge. Geographic variations were seen in a cluster of counties in the Southern tip of the state, with Robeson County performing 15% below the state average and New Hanover County 12% below the state average. Performance was better in the Central region. Mecklenburg, Cabarrus, Davidson, and Forsyth counties had a relatively large number of NC Medicaid beneficiaries, and all performed above the state average.

Map 1. Percent of beneficiaries six and older who were hospitalized for treatment of mental illness and received a follow-up visit with a mental health practitioner within 30 days of discharge—By County (*Follow-up After Hospitalization for Mental Illness: 30-Day Follow-up (All Ages)*)



Timely care and follow-up services are crucial for those experiencing substance use disorder as well. Substance abuse exacts a personal, social, and economic toll, contributing to disease, premature death, lost productivity, theft and violence, healthcare expenses, law enforcement, and criminal justice costs.³⁴ Individuals with alcohol and other drug (AOD) abuse or dependence, at all levels of severity, can benefit from treatment. NC Medicaid demonstrated sustained improvement for both initiation and engagement of AOD treatment, as shown in Chart 10 and Chart 11.

Chart 10. Percent of adolescents and adults with a new episode of alcohol or other drug (AOD) dependence who initiated treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, partial hospitalization, telehealth, or medication-assisted treatment within 14 days of the diagnosis (*Initiation of AOD Treatment (All Ages)*)

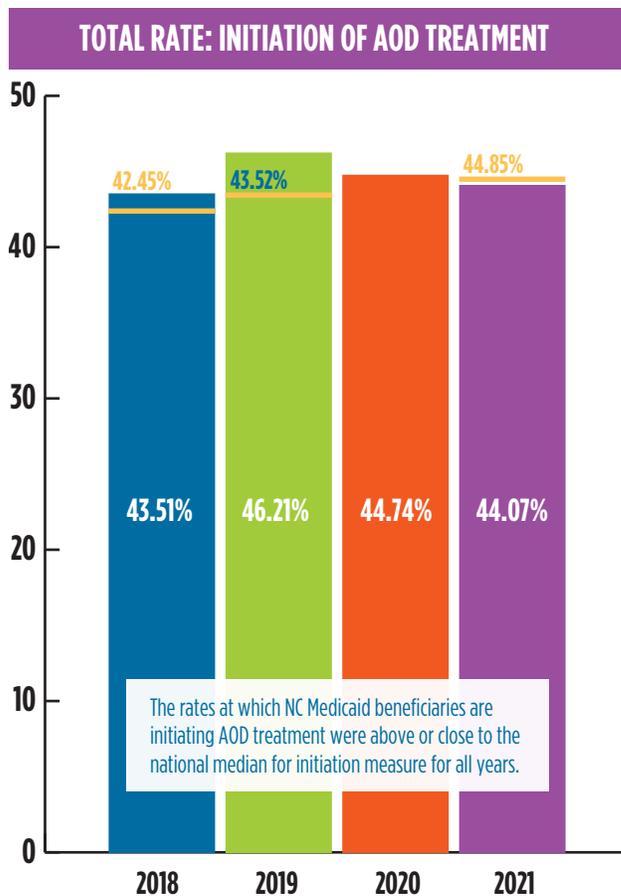
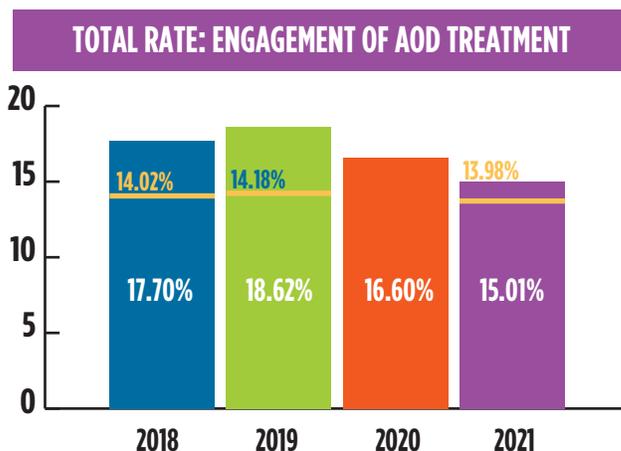


Chart 11. Percent of adolescents and adults with a new episode of AOD dependence who initiated treatment and had two or more additional AOD services or medication-assisted treatment within 34 days of the initiation visit (*Engagement of AOD Treatment (All Ages)*)

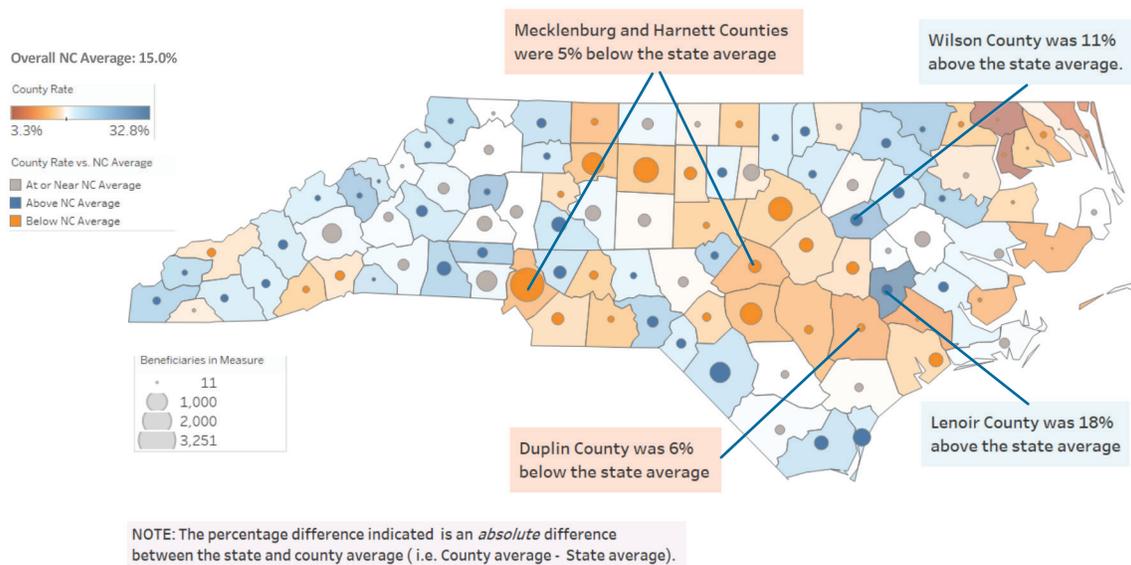


³⁴U.S. Department of Health and Human Services, Office of the Surgeon General, *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health. Time for a Change.* Washington, DC: HHS, November 2016. Accessed May 23, 2023. <https://addiction.surgeongeneral.gov/vision-future/time-for-a-change>

Map 2 is another example of the importance of measure stratification. From a statewide perspective, NC Medicaid was performing above the national median for initiation and engagement of AOD treatment, but the stratified rates showed significant variance in performance at the county level. The shading on Map 2 represents counties' 2021 rates for *Engagement of AOD Treatment (All Ages)*, with orange indicating lower rates and blue indicating higher rates. Dot size represents the number of NC Medicaid beneficiaries in counties' denominator for the measure.

The map reveals higher rates of engagement in the Mountain region of the state, with most western counties performing above the state average. Central North Carolina lagged behind, with many counties performing below the state average, including the counties with the highest population of NC Medicaid beneficiaries.

Map 2. Rates at which adolescents and adults in 2021, with a new episode of AOD, initiated AOD treatment and had two or more additional services within 34 days of the initiation visit—By County (Engagement of AOD Treatment (All Ages))



Summary of Performance for Goal 2

Table 2 outlines measures that assess the delivery of patient-centered, whole-person care. Although NC Medicaid's performance on many measures is not significantly different from national rates, the state's performance on the majority of measures trended downward from 2018-2021. In addition, measures related to the coordination of physical and behavioral health care indicated an opportunity for improvement.

Currently, LME/MCOs are held accountable for improving rates on several of these measures. In the future, all NC Medicaid health plans will be accountable for improving coordination of care.

For a more detailed description of each measure included in the table, see [Appendix A](#).

Table 2: Summary of Performance for Goal 2 – Drive Patient-centered, Whole-person Care (Listed Measures Focus Primarily on Behavioral Health Needs)

Measure Name	2018 Rates %	2019 Rates %	2020 Rates %	2021 Rates %	Comparison to 2022 National Median
Rating of Personal Doctor—Child³⁵	91.90	91.70	—	91.20	★★
Rating of Personal Doctor—Adult²⁵	85.10	83.20	—	86.30	★★★
Antidepressant Medication Management					
Acute Phase	55.08	58.17	60.12	54.12	★
Continuation Phase	39.07	39.05	41.61	33.90	★
Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who are Using Antipsychotic Medications	78.73	79.72	74.72	77.15	★★
Follow-Up After Hospitalization for Mental Illness (All Ages)					
7-Day Follow-up	28.30	29.48	27.68	24.49	★
30-Day Follow-up	46.67	49.41	46.21	42.10	★
Follow-Up After Hospitalization for Mental Illness (Ages 18–64)					
7-Day Follow-up	24.30	25.42	23.12	20.34	★
30-Day Follow-up	40.60	42.62	39.77	35.42	★
Follow-Up Care for Children Prescribed ADHD Medication					
Initiation Phase	49.71	50.11	51.75	45.60	★★★
Continuation and Maintenance (C&M) Phase	60.28	63.54	62.87	61.13	★★★
Follow-Up After ED Visit for Mental Illness (All Ages)					
7-Day Follow-up	44.62	45.84	44.90	44.80	★★
30-Day Follow-up	60.18	61.11	60.75	60.58	★★
Follow-Up After ED Visit for Alcohol and Other Drug (AOD) Abuse or Dependence (All Ages)					
7-Day Follow-up	15.24	14.83	13.42	15.07	★★
30-Day Follow-up	22.10	21.84	19.85	22.46	★★
Initiation and Engagement of AOD Dependence Treatment (Age 13-17 years)					
Initiation of Treatment	—	—	—	37.92	★★
Engagement of Treatment	—	—	—	6.85	★
Initiation and Engagement of AOD Dependence Treatment (Age 18+ years)					
Initiation of Treatment	44.20	46.84	45.18	44.38	★★
Engagement of Treatment	17.90	19.01	16.97	15.42	★★

³⁵Due to the COVID-19 pandemic, CAHPS was not fielded in 2020. As such, there are no 2020 CAHPS data used for comparison in this report.

Measure Name	2018 Rates %	2019 Rates %	2020 Rates %	2021 Rates %	Comparison to 2022 National Median
Initiation and Engagement of AOD Dependence Treatment (All Ages)					
Initiation of Treatment	43.51	46.21	44.74	44.07	★★
Engagement of Treatment	17.70	18.62	16.60	15.01	★★
Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics	50.75	52.09	50.82	45.02	★

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Aim 2: Healthier People and Communities

Goal 3: Promote Wellness and Prevention

As of 2021, about 84% of the state’s NC Medicaid beneficiaries were either women of all ages or children under the age of 21.³⁶ Given the size of these populations, women and children’s health over the life course is critical to the overall health of NC Medicaid’s population. NC Medicaid focuses on these populations through the program’s quality of care and improvement initiatives including the [Pregnancy Medical Home \(PMH\)](#) program, the [Care Coordination for Children \(CC4C\)](#) program, and care management through CCNC. These initiatives engage providers through evidence-based care guidance, support increased capacity to identify and manage at-risk beneficiaries, and provide care management for improved quality of care and health outcomes.

In 2011, NC Medicaid established the PMH program, which provided high-risk pregnant recipients with comprehensive and coordinated perinatal care and care management services. When managed care launched in 2021, the names of programs for pregnant women changed to distinguish fee-for-service programs from managed care programs. NC Medicaid transitioned the PMH program to the Pregnancy Management Program (PMP) to account for the role of the PHPs. PMP offers similar coordinated maternity care services, focusing on preventing preterm births. The Care Management for High-Risk Pregnancy (CMHRP) program also began in 2021 and offers care management services through local health departments (LHDs). This program uses a pregnancy risk screening tool to identify Medicaid recipients at risk for adverse birth outcomes. Care Management for At-Risk Children (CMARC) program coordinates services between health care providers, community programs, and family support programs for at-risk children ages zero to five. CMARC services, like CMHRP’s, are providers by LHDs.

Program Name: Fee-for-Service	Program Name: Managed Care
PMH	PMP
Obstetric Care Management	CMHRP
Care Coordination for Children	CMARC

³⁶NC Medicaid member level enrollment data, 2021.

The NCDHHS will also continue its partnership with the University of North Carolina at Chapel Hill's [Perinatal Quality Collaborative of North Carolina \(PQCNC\)](#). In the past several years, PQCNC identified key opportunities for improvement to hospital and community-based perinatal care and has executed time-limited statewide quality initiatives to capitalize on these opportunities. The NCDHHS continues to partner with PQCNC to share best practices, promote health equity, reduce unnecessary variations in care, encourage partnership with families and patients, and optimize resources.

Recognizing the immense progress and importance these aligned partnerships offer is essential to the improvement in health outcomes for women and children served by NC Medicaid. NC Medicaid will continue to focus on women and children's health through managed care, as well as continue alignment with its [Early Childhood Action Plan](#), [Perinatal Health Strategic Plan](#), Standard Plan performance improvement projects, and other local, regional, state, and national initiatives.

Children's Health

Child and adolescent immunizations promote health and wellness among pediatric populations by preventing serious illness and complications from disease. As Chart 12 shows, NC Medicaid performance was consistently below the national median for *Childhood Immunization Status (Combination 10)*. Combination 10 consists of 10 distinct vaccine series: diphtheria, tetanus, and acellular pertussis (DTaP); polio (IPV); measles, mumps, and rubella (MMR); haemophilus influenza type B (HiB); hepatitis B (HepB); chicken pox (VZV); pneumococcal conjugate (PCV); hepatitis A (HepA); rotavirus (RV), and influenza (flu). Of these vaccines, the influenza vaccination has consistently been the driver of low Combination 10 performance for North Carolina, as demonstrated in Chart 13 which displays the individual vaccine percentages for 2021. Upon implementation of managed care, NC Medicaid directed the Standard Plans to conduct a performance improvement project to address low childhood immunization performance.

Chart 12. The percent of children enrolled in NC Medicaid who received all of the immunizations that make up Combination 10 by their second birthday (Childhood Immunization Status (Combination 10)) 

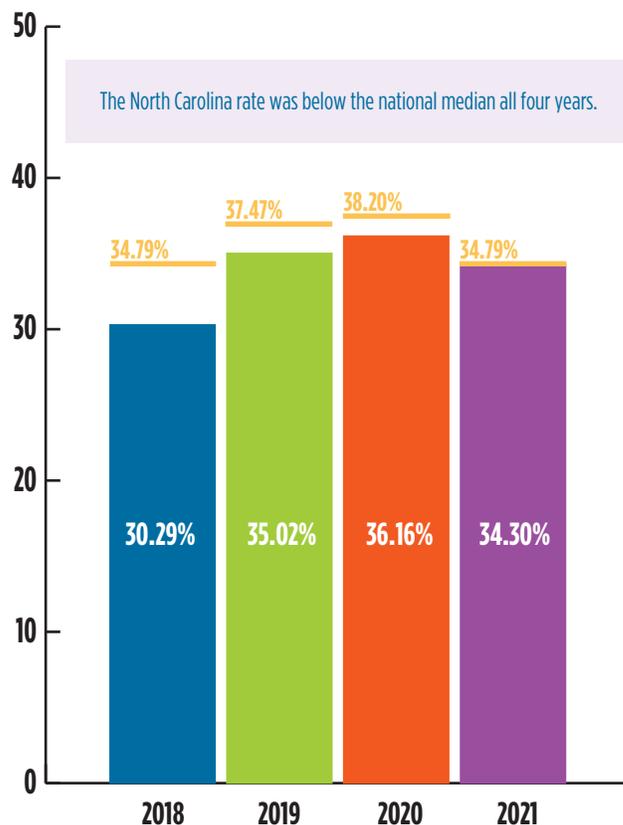
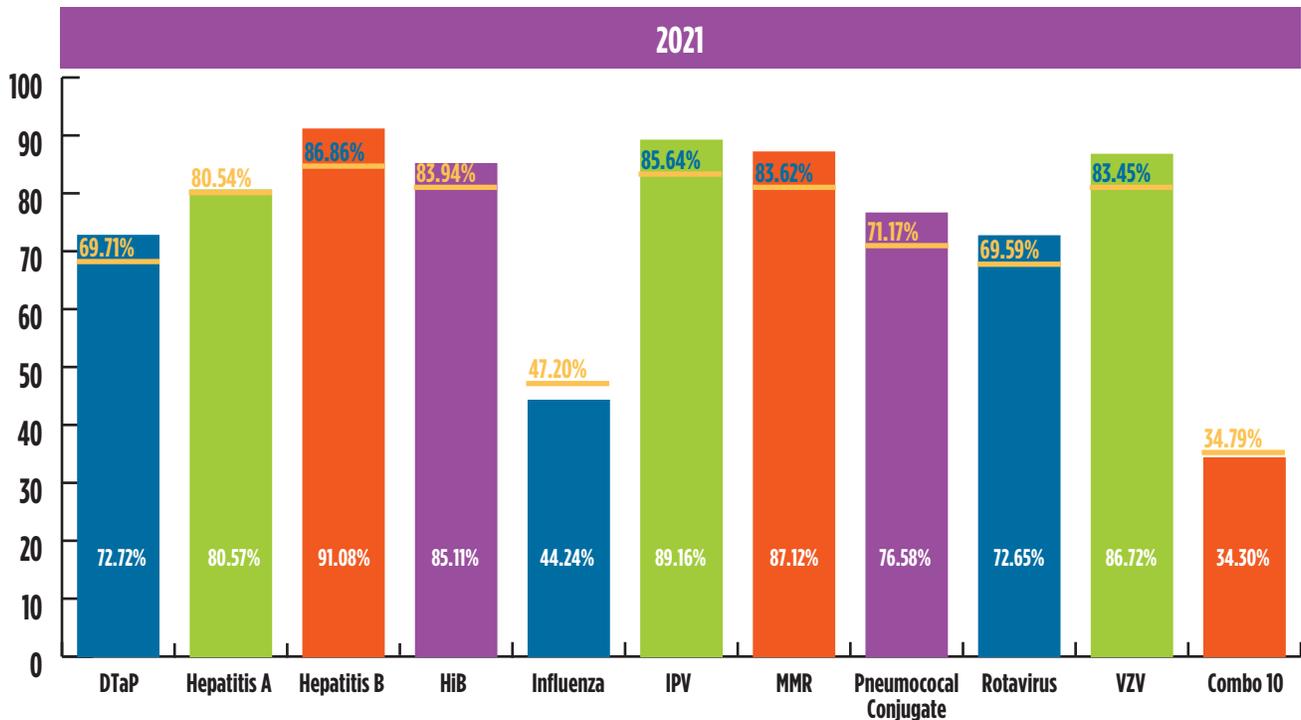


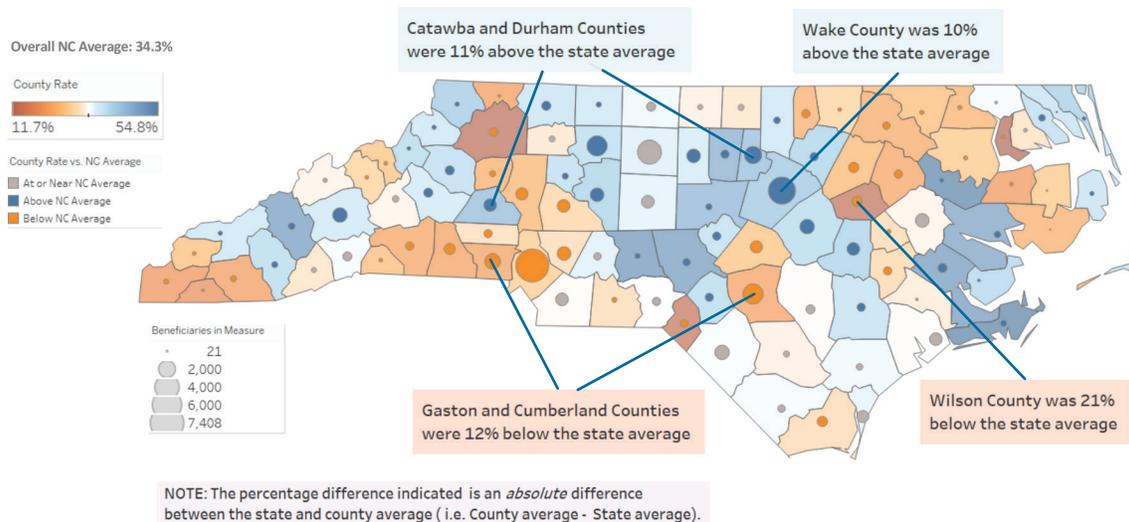
Chart 13. Individual vaccine rates for 2021 for *Childhood Immunization Status (Combination 10)*



The shading on Map 3 represents counties' 2021 rates for *Childhood Immunization Status (Combination 10)*, with orange indicating lower rates and blue indicating higher rates. Dot size represents the number of NC Medicaid beneficiaries in counties' denominator for the measure.

Geographic variations were identified in the westernmost part of the state, with four counties in this area performing below the state average. In many of the counties with the largest number of NC Medicaid beneficiaries, children were immunized at lower rates than the state average (e.g., Mecklenburg, Cabarrus, Rowan, Iredell, and Cumberland).

Map 3. The percent of children enrolled in NC Medicaid in 2021 who received all of the immunizations that make up Combination 10 by their second birthday—By County (*Childhood Immunization Status (Combination 10)*)



In addition to childhood vaccination, vaccines recommended for adolescents help protect them from a variety of diseases and help prevent major health problems including infertility, muscle paralysis, brain damage, blindness, and cancer.³⁷ As Chart 14 shows, NC Medicaid rates for *Immunizations for Adolescents (Combination 2)* were below the national median each year from 2018-2021. Combination 2 consists of three vaccines: meningococcal (MCV4); tetanus, diphtheria, acellular pertussis (Tdap); and the complete human papillomavirus (HPV) series. Of these vaccines, HPV were the driver of low Combination 2 rates among NC Medicaid beneficiaries, as demonstrated in Chart 15 which displays the individual vaccine rates for 2021.

Chart 14. Percent of 13-year-olds, for 2018-2021, enrolled in NC Medicaid who received the immunizations that make up Combination 2 (one dose of MCV4, one Tdap vaccine, and the complete HPV vaccine series) by their 13th birthday (*Immunizations for Adolescents (Combination 2)*)

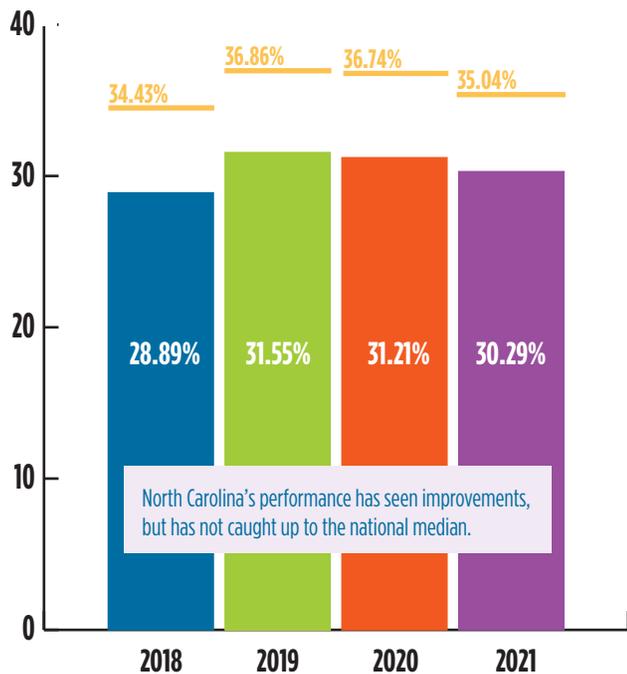
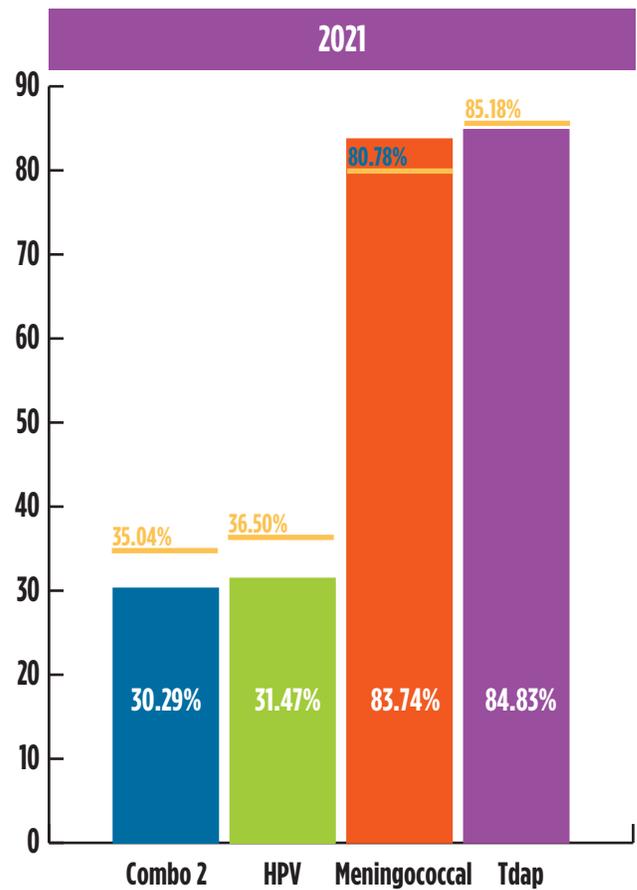


Chart 15. Individual vaccine rates for 2021 for Immunizations for Adolescents (Combination 2)



³⁷*Immunizations for Adolescents. North Carolina Department of Health and Human Services. Updated: March 25, 2022. Accessed May 23, 2023. https://immunization.dph.ncdhhs.gov/family/immnz_adolescents.htm*

Summary of Performance for Children’s Health

Table 3 indicates NC Medicaid’s performance on select measures associated with promoting wellness and prevention in children. Overall, performance was on par with the national medians for most measures. NC Medicaid’s low performance on Weight Assessment and Counseling for Nutrition and Physical Activity may be explained in part by a lack of consistent documentation for the related services. North Carolina recently added coverage for diagnosis codes associated with Weight Assessment and Counseling for Nutrition and Physical Activity to address these gaps. For a more detailed description of each measure included in the table, see [Appendix A](#).

Table 3: Summary of Performance for Goal 3 – Promote Wellness and Prevention – Children’s Health

Measure Name	2018 Rates	2019 Rates	2020 Rates	2021 Rates	Comparison to 2022 National Median
Ambulatory Care: ED Visits (Ages 0-19 years)³⁸					
NC Medicaid	45.90	46.8	28.54	32.96	N/A
North Carolina Health Choice ³⁹	26.60	28.07	17.19	18.56	N/A
Childhood Immunization Status					
Combination 10 ⁴⁰	30.29%	35.02%	36.16%	34.30%	★★
Diphtheria, Tetanus, Acellular Pertussis (DTaP)	74.12%	77.62%	75.76%	72.72%	★★
Hepatitis A (Hep A)	82.56%	84.22%	83.58%	80.57%	★★
Hepatitis B (Hep B)	84.56%	93.60%	92.87%	91.08%	★★★
Haemophilus Influenzae Type B (HiB)	86.09%	88.92%	87.91%	85.11%	★★
Influenza (Flu)	44.70%	45.34%	47.17%	44.24%	★★
Inactivated Poliovirus (IPV)	87.82%	92.00%	91.42%	89.16%	★★★
Measles, Mumps, Rubella (MMR)	89.45%	90.93%	90.32%	87.12%	★★★
Pneumococcal Conjugate (PCV)	76.22%	79.16%	78.57%	76.58%	★★★
Rotavirus (RV)	72.22%	74.55%	74.12%	72.65%	★★
Varicella-Zoster Virus (VZV)	88.96%	90.69%	89.95%	86.72%	★★★
Follow-Up After ED Visit for Substance Use Disorder (Ages 13-17 years)					
7-Day Follow-up	—	—	9.80%	6.99%	★★
30-Day Follow-up	—	—	12.01%	8.82%	★★

³⁸Per 1,000 beneficiary months. Lower performance is better.

³⁹North Carolina Health Choice for Children provided comprehensive health benefits for children who had family incomes that were too high for Medicaid coverage. Effective April 1, 2023, North Carolina Health Choice beneficiaries automatically moved to the Medicaid program.

⁴⁰Combination 10 includes children 2 years of age who had four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three haemophilus influenza type B (HiB); three hepatitis B (HepB), one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday.

Measure Name	2018 Rates	2019 Rates	2020 Rates	2021 Rates	Comparison to 2022 National Median
Follow-Up After ED Visit for Mental Illness (Ages 6-17 years)					
7-Day Follow-up	—	—	53.13%	52.26%	★★
30-Day Follow-up	—	—	70.58%	70.06%	★★
Follow-Up After Hospitalization for Mental Illness (Ages 6-17 years)					
7-Day Follow-up	36.16%	38.13%	38.16%	35.20%	★
30-Day Follow-up	58.56%	63.88%	60.98%	59.33%	★
Immunizations for Adolescents					
Combination 1 ⁴¹	83.91%	85.81%	83.12%	82.24%	★★
Combination 2 ⁴²	28.89%	31.55%	31.21%	30.29%	★
Human Papillomavirus (HPV)	30.91%	33.19%	32.60%	31.47%	★
Meningococcal	85.71%	87.47%	84.81%	83.74%	★★
Tetanus, Diphtheria, Acellular Pertussis (Tdap)	87.52%	88.80%	85.90%	84.83%	★★
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents (Ages 3-17 years)⁴³					
Total BMI Percentile Documentation	38.44%	42.56%	44.04%	29.07%	★
Total Counseling for Nutrition	17.93%	21.06%	24.09%	15.70%	★
Total Counseling for Physical Activity	2.23%	5.20%	7.83%	6.76%	★
Well-Child Visits in the First 30 Months of Life⁴⁴					
First 15 Months: 6 or More Well-Child Visits	—	—	62.30%	62.06%	★★★
Age 15 Months–30 Months: 2 or More Well-Child Visits	—	—	70.79%	66.44%	★★
Child and Adolescent Well-Care Visits⁴⁵	—	—	45.62%	47.80%	★★

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⁴¹ Combination 1 includes at least one meningococcal conjugate vaccine within a date of service on or between the beneficiary's 11th and 13th birthdays plus at least one Tdap vaccine with a date of service on or between the beneficiary's 10th and 13th birthdays.

⁴² Combination 2 includes above Combo 1 at least two HPV vaccines with different dates of service on or between the beneficiary's 9th and 13th birthdays, with at least 146 days between the first and second dose of the HPV vaccine, or at least three HPV vaccines with different dates of service on or between the beneficiaries 9th and 13th birthdays.

⁴³ North Carolina's performance on this measure may be affected by billing documentation as not all providers document these services consistently.

⁴⁴ Measure changed from Well-Child Visits in the First 15 Months of Life to Well-Child Visits in the First 30 Months of Life in HEDIS measurement year 2020.

⁴⁵ Measure changed in HEDIS measurement year 2020 to combine two previous measures: Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life and Adolescent Well-Care Visits.

Women's Health

Early detection of health conditions via recommended screenings can lead to a greater range of treatment options, lower health care costs, and improve health outcomes.⁴⁶ As shown in Chart 16 and Chart 17, NC Medicaid breast and cervical cancer screening rates have been below the national median for several years and decreased every year from 2018-2021. Women who are already enrolled in health care coverage have a greater likelihood of early screening and detection.⁴⁷ It is possible that some screening is not accurately captured by NC Medicaid's administrative data as many young women will alternate between Family Planning Medicaid, private coverage, and no coverage. The churn these beneficiaries experience will be mitigated by the broadened eligibility criteria under Medicaid expansion, which was implemented in December 2023.

Chart 16. Percent of women ages 50-74 years of age enrolled in NC Medicaid who had at least one mammogram to screen for breast cancer in the past two years (*Breast Cancer Screening*)

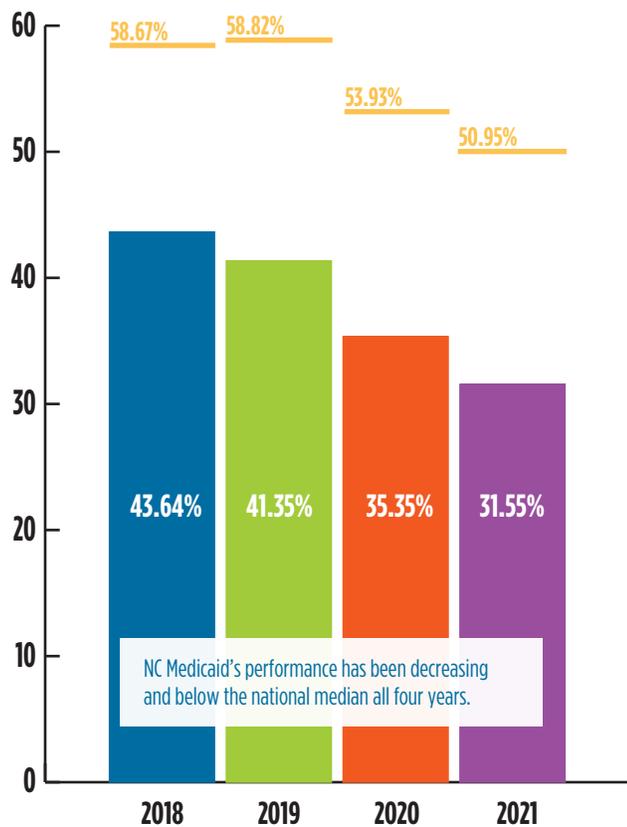
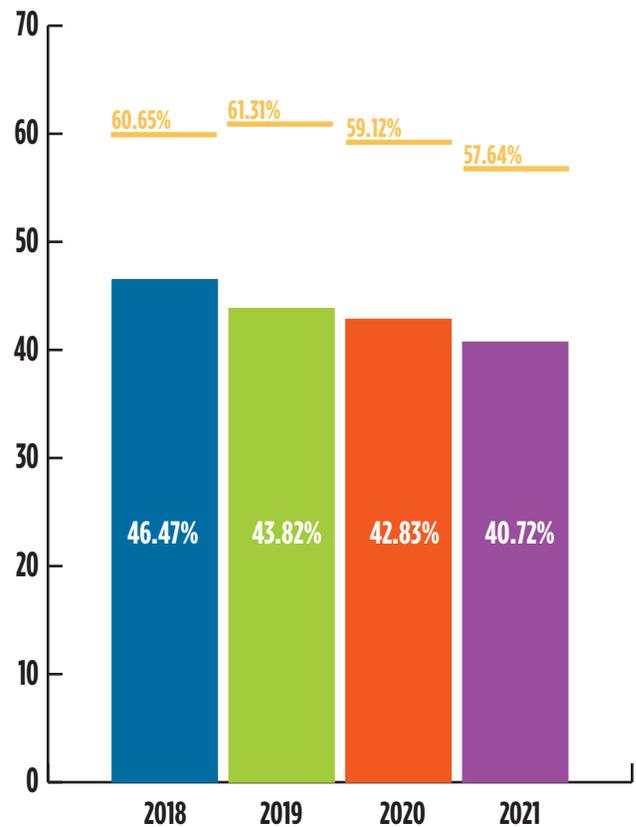


Chart 17. Percent of women ages 21-64 years of age who were screened for cervical cancer⁴⁸ (*Cervical Cancer Screening*)



⁴⁶American Cancer Society Recommendations for the Early Detection of Breast Cancer. American Cancer Society. Updated January 14, 2022. Accessed May 23, 2023. <https://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/american-cancer-society-recommendations-for-the-early-detection-of-breast-cancer.html>

⁴⁷How the Affordable Care Act Has Helped Women Gain Insurance and Improved Their Ability to Get Health Care. The Commonwealth Fund. August 10, 2017. Accessed May 23, 2023. <https://www.commonwealthfund.org/publications/issue-briefs/2017/aug/how-affordable-care-act-has-helped-women-gain-insurance-and>

⁴⁸Assesses women who were screened for cervical cancer using any of the following criteria:

- Women 21-64 years of age who had cervical cytology performed within the last 3 years.
- Women 30-64 years of age who had cervical high-risk human papillomavirus (hrHPV) testing performed within the last 5 years.
- Women 30-64 years of age who had cervical cytology/high-risk hrHPV cotesting within the last 5 years.

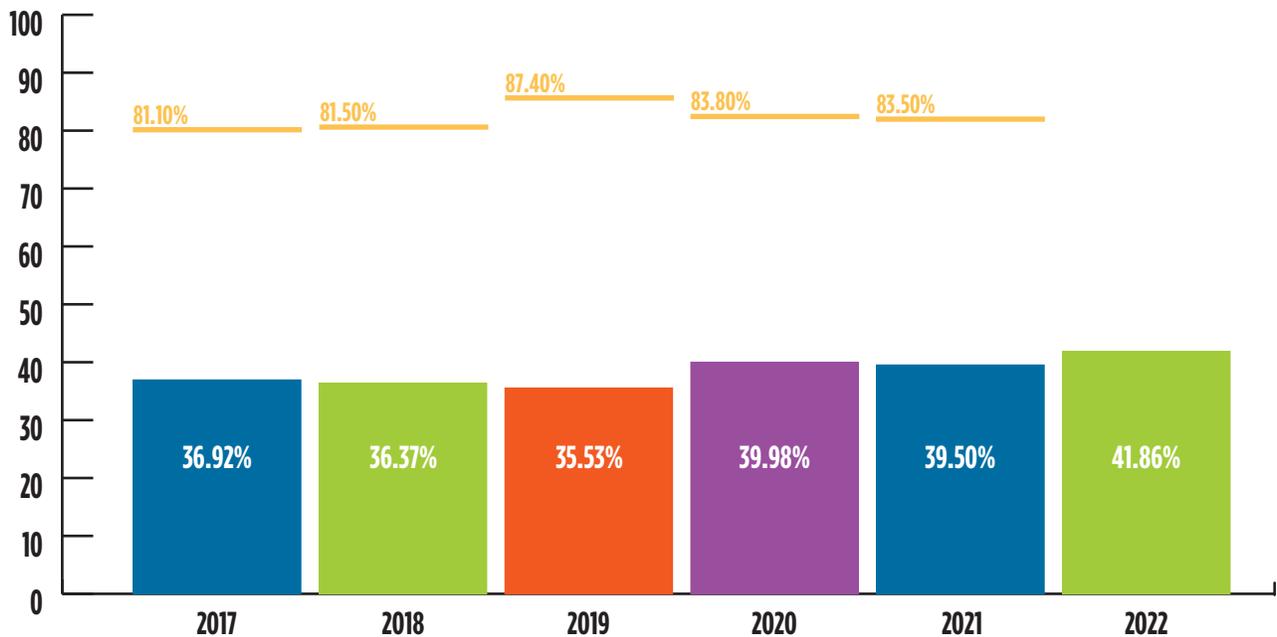
NC Medicaid beneficiaries account for more than 54% of all deliveries in North Carolina.⁴⁹ Women’s preconception, interconception, and maternal care is essential to improving women and children’s health and birth outcomes. Health care visits prior to and early in pregnancy help promote safe deliveries and address potential risks for both mothers and babies. Similarly, health care visits in the weeks after delivery allow providers to screen for and treat potential postpartum care needs, such as postpartum depression or physical complications.⁵⁰

The *Prenatal and Postpartum Care* measure assesses access to prenatal and postpartum care. As shown in Charts 18 and 19, NC Medicaid rates for both measure indicators fell below the national median from 2018-2021 and neither indicator has demonstrated improvement over time. While this provides an opportunity for North Carolina to improve, it is also an opportunity to assess the accuracy and completeness of prenatal and postpartum care administrative data.

NC Medicaid allows providers to bill all services normally provided in routine maternity care (including antepartum care, delivery, and postpartum care) using a single global billing package. This in turn impacts the ability to identify the first instance of prenatal care and, albeit less often, postpartum care via claims and encounters data. In an effort to more accurately capture instances of prenatal care, NC Medicaid is promoting the use of the 0500F CPT code to report the first prenatal encounter and the 0503F code to report postpartum care separate from global billing codes.

In addition, the NCDHHS has directed the health plans to implement a performance improvement project to impact both prenatal and postpartum care.

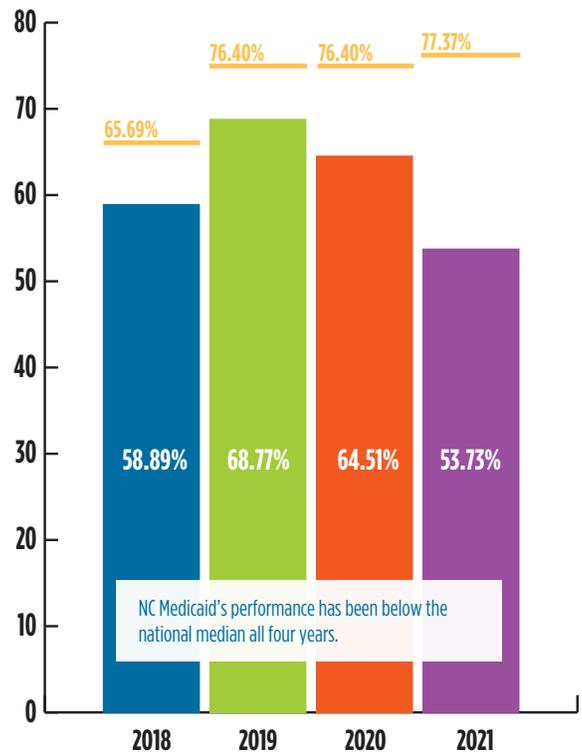
Chart 18. Percent of deliveries in which women had a prenatal care visit in the first trimester, on or before the enrollment start date or within 42 days of enrollment in the organization (*Timeliness of Prenatal Care*) 



⁴⁹ The 54 percent stated here includes 6.2 percent of births that were covered by emergency Medicaid but did not have access to prenatal care through Medicaid <https://schs.dph.ncdhhs.gov/schs/births/matched/2019/2019-Births-Overall.html>.

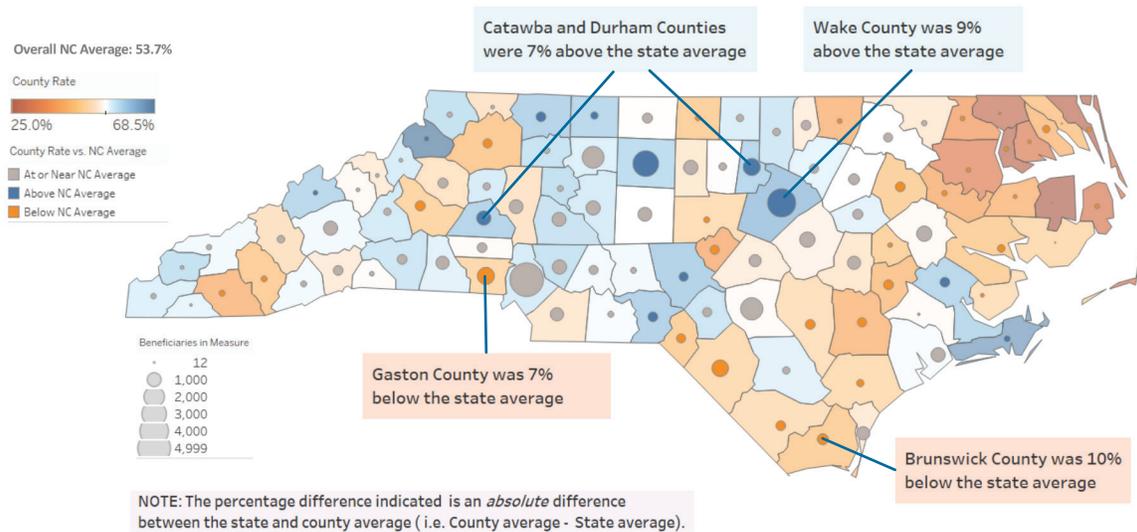
⁵⁰ Optimizing postpartum care. ACOG Committee Opinion No. 736. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2018;131:e140–50. <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care>.

Chart 19. Percent of deliveries in which women had a postpartum visit on or between 7 and 84 days after delivery (Postpartum Care)



The shading on Map 4 represents counties' 2021 rates for Postpartum Care, with orange indicating lower rates and blue indicating higher rates. Dot size represents the number of NC Medicaid beneficiaries in counties' denominator for the measure. In many of the counties with the largest number of NC Medicaid beneficiaries, women received postpartum visits at rates near or above the state average (e.g., Mecklenburg, Cabarrus, Guilford, Durham, and Wake counties). However, a majority of counties in the Coastal Plain region lagged behind the state average.

Map 4. Percent of deliveries in which women had a postpartum visit on or between 7 and 84 days after delivery - By County (Postpartum Care)



Low Birth Weight

North Carolina ranked 43rd among states for both high infant mortality and low birth weight rates in 2020.⁵¹ The state's [Perinatal Health Strategic Plan](#) serves as a statewide guide to improve maternal and infant health and the health of all people of reproductive age. The first Perinatal Health Strategic Plan was implemented in 2016 and was most recently updated for 2022-2026. It seeks to address both the challenges of structural racism and the pandemic by focusing on health-related social needs.

Summary of Performance for Women's Health and Low Birth Weight

NC Medicaid's performance on select measures associated with women's health are displayed in Table 4. These measures look at preventive care for all women as well as prenatal, antenatal, and postpartum care. Some pregnancy measures have no national comparison rates but serve as helpful indicators and reminders that comprehensive care drives better maternal and infant health outcomes. For a more detailed description of each measure included in the table, see [Appendix A](#).

Table 4: Summary of Performance for Goal 3 – Promote Wellness and Prevention – Women's Health

Measure Name	2018 Rates %	2019 Rates %	2020 Rates %	2021 Rates %	Comparison to 2022 National Median
Breast Cancer Screening	43.64	41.35	35.35	31.55	★
Cervical Cancer Screening	46.47	43.82	42.83	40.72	★
Chlamydia Screening (Total (All Ages))	57.86	58.22	57.19	56.79	★★
Contraceptive Care for Postpartum Women (Ages 15-20) CCP⁵²					
3 Days Postpartum (Most or moderately effective FDA-approved)	7.90	9.21	9.21	8.78	N/A
60 Days Postpartum (Most or moderately effective FDA-approved)	48.50	46.08	46.74	43.96	N/A
3 Days Postpartum (LARC) ⁵³	2.00	3.65	4.42	4.44	N/A
60 Days Postpartum (LARC)	18.90	18.56	19.32	16.39	N/A
Contraceptive Care for Postpartum Women (Ages 21-44)					
3 Days Postpartum (Most or moderately effective FDA-approved)	15.10	15.34	15.06	14.85	N/A
60 Days Postpartum (Most or moderately effective FDA-approved)	44.40	46.91	43.39	40.10	N/A
3 Days Postpartum (LARC)	0.80	2.25	2.98	3.20	N/A
60 Days Postpartum (LARC)	12.60	15.25	14.09	12.26	N/A
Low Birth Weight⁵⁴	11.50	11.60	—	—	N/A

⁵¹ Infant Mortality Rates by State. CDC. Accessed July 25, 2023. https://www.cdc.gov/nchs/pressroom/sosmap/infant_mortality_rates/infant_mortality.htm. Percentage of Babies Born Low Birthweight By State. CDC. Accessed July 25, 2023. https://www.cdc.gov/nchs/pressroom/sosmap/lbw_births/lbw.htm

⁵² Experts in the fields of family planning and reproductive justice concur that there is value in measuring contraceptive use, but not in conjunction with a benchmark. Use of a benchmark could suggest that there is a 'correct' rate of contraceptive use, even though contraception is a preference-sensitive choice. The State will be using the performance information on contraceptive measures to assess areas in the state where enrollees may have contraceptive access issues.

⁵³ LARC: Long Acting Reversible Contraceptives.

⁵⁴ North Carolina Department of Health and Human Services is finalizing specifications for the Low Birth Weight measure specific to the NC Medicaid populations at a Health Plan level.

Measure Name	2018 Rates %	2019 Rates %	2020 Rates %	2021 Rates %	Comparison to 2022 National Median
Prenatal and Postpartum Care⁵⁵					
Timeliness of Prenatal Care	36.37	35.53	39.98	39.50	★
Postpartum Care	58.89	68.77	64.51	53.73	★

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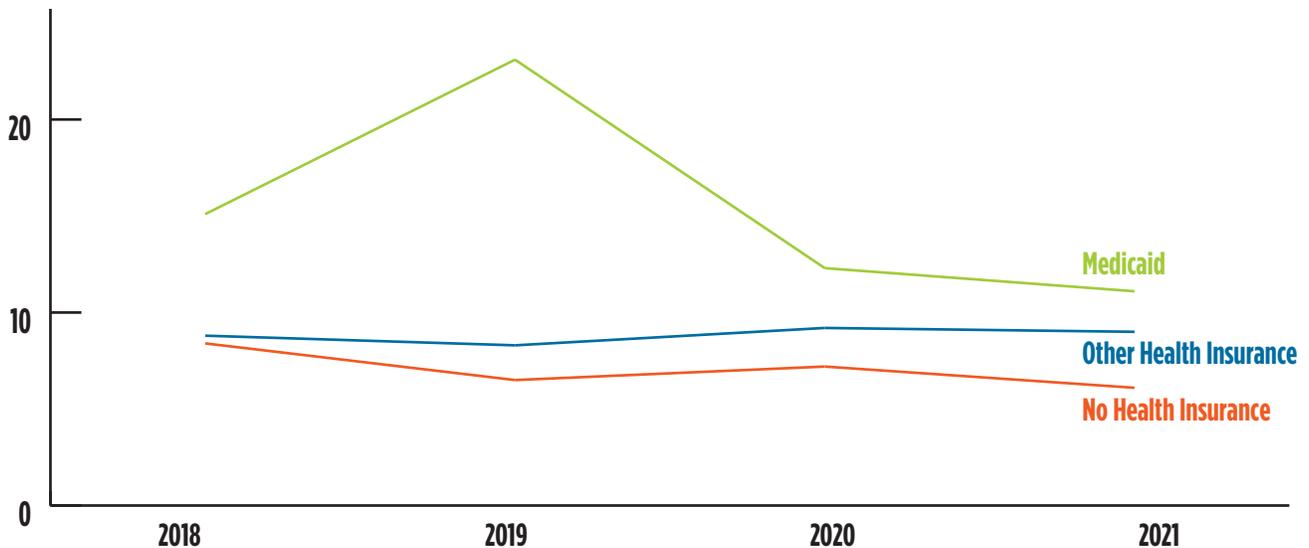
Goal 4: Improve Chronic Condition Management

As of 2021, over 40% of NC Medicaid’s beneficiaries had two or more chronic conditions.⁵⁶ When not managed appropriately, chronic conditions can be debilitating and even life threatening. NC Medicaid is focused on improving the management of chronic diseases with the greatest impact on NC Medicaid beneficiaries, including diabetes, cardiovascular disease, chronic obstructive pulmonary disease (COPD), and asthma.

Diabetes

For the last four years, the percent of NC Medicaid beneficiaries with diabetes has been more than 10 percent (see Chart 20). NC Medicaid beneficiaries also report having been diagnosed with diabetes at higher rates than those with other health insurance and those with no health insurance.

Chart 20. Diabetes by Insurance Type³⁸ - This chart illustrates, for the NC Medicaid, no health insurance and other health insurance populations, the estimated percent of North Carolina adults diagnosed with diabetes from 2018 to 2021. The estimates are based on respondents who answered ‘Yes’ to the BRFSS Question - ‘Has a doctor, nurse, or other health professional ever told you that [...] you have diabetes?’.



⁵⁵ A significant contributor to these data may be global billing codes used by many of NC Medicaid’s Prepaid health plans that diminish the ability to capture these visits separately from other aspects of perinatal care delivery.

⁵⁶ BRFSS Report: Medicaid, Final 2021. North Carolina Department of Health and Human Services. Accessed May 23, 2023. <https://schs.dph.ncdhhs.gov/data/brfss/medicaid/docs/Medicaid-2021-TABLES-FINAL.pdf>

North Carolina historically has high rates of obesity, a known diabetic risk factor.⁵⁷ As of 2021, 69% of adults enrolled in NC Medicaid were either overweight or obese.⁵⁸ If not properly managed, diabetes can lead to serious complications, including blindness, kidney failure, and heart disease, particularly in people with other comorbidities. The hemoglobin A1C (or HbA1c test) is a blood test that measures average blood sugar levels. It's one of the commonly used tests to help manage diabetes and provides critical information about blood glucose control and overall disease management.

HbA1c results provide the most direct insight into diabetes control and are important in assessing and monitoring the quality of diabetes care in NC Medicaid beneficiaries. During each of the measurement years, almost a quarter of individuals enrolled in NC Medicaid who had diabetes did not receive an HbA1c test and NC Medicaid's performance on this measure was well below the national median (as shown in Chart 21). Recognizing providers face challenges in reporting this measure, the NCDHHS is working with providers, plans, and the state's Health Information Exchange (NC HealthConnex) to implement a strategy to improve data quality and reporting.

Asthma

When not properly managed, asthma can be detrimental to a child's physical and emotional well-being. The CDC identifies asthma as one of the leading causes of absenteeism for students in grades K-12.⁵⁹

Appropriate medication management for patients with asthma could reduce the need for rescue (or quick relief) medication—as well as the costs associated with ER visits, inpatient admissions, and missed days of work or school. The *Asthma Medication Ratio* measure is a way to measure use of medications that promote long-term control of the disease. The percent of NC Medicaid enrollees with asthma who were using the appropriate ratio of long-term to quick relief asthma medication was above the national median (Chart 22).

Chart 21. The percent of individuals ages 18 to 75 enrolled in NC Medicaid with diabetes who received an HbA1c test during the year (HbA1c Testing)

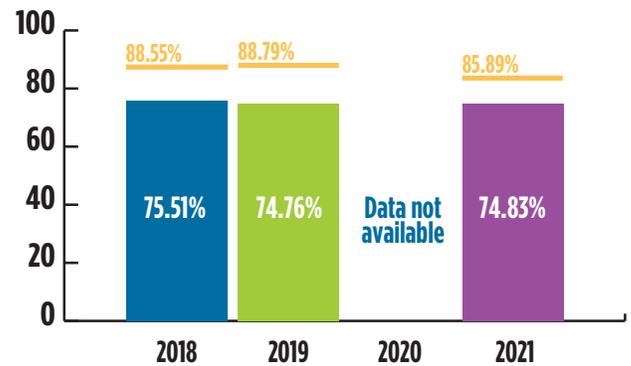
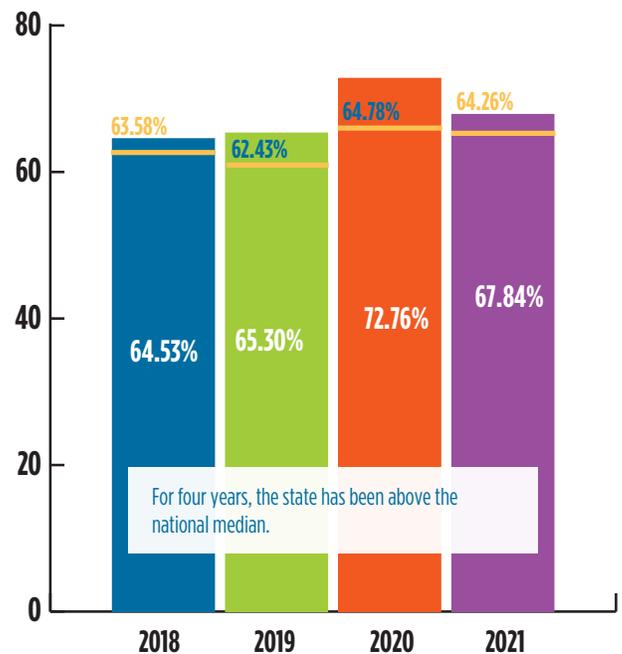


Chart 22. The percent of people with an asthma diagnosis (ages 5 to 64) enrolled in NC Medicaid who used the appropriate ratio of long-term to quick relief medications (Asthma Medication Ratio)



⁵⁷ United Health Foundation. *Obesity in North Carolina. America's Health Rankings*. Accessed May 23, 2023.

<https://www.americashealthrankings.org/explore/measures/Obesity/NC>

⁵⁸ BRFSS data are self-reported survey data based on a random sample and all estimates are subject to sample errors. As such, 95 percent intervals for all rates based on BRFSS data are available here: <https://schs.dph.ncdhhs.gov/data/brfss/2021>.

⁵⁹ Asthma. Centers for Disease Control and Prevention. Updated August 18, 2022. Accessed May 23, 2023. <https://www.cdc.gov/healthyschools/asthma/index.htm>

Summary of Performance for Chronic Condition Management

Table 5 provides NC Medicaid’s recent performance on select measures associated with improving chronic condition management. The PQI measures use data from hospital discharges to identify admissions that might have been avoided through access to high-quality outpatient care. The PQIs are population based indicators that capture all cases of the potentially preventable complications that occur in a given population either during a hospitalization or in a subsequent hospitalization. The PQIs are a key tool for community health needs assessments. For a more detailed description of each measure included in the table, see [Appendix A](#). Overall, the PQI measures for diabetes, COPD, asthma and heart failure have generally been decreasing year over year. This is a positive trend.

Table 5: Summary of Performance for Goal 4 - Improve Chronic Condition Management

Measure Name	2018 Rates	2019 Rates	2020 Rates	2021 Rates	Comparison to 2022 National Median
Asthma Medication Ratio (Total All Ages)	64.53%	65.30%	72.76%	67.84%	★ ★
Hemoglobin A1c (HBA1c) Testing⁶⁰	75.71%	74.76%	72.58%	74.83%	★
PQI-01: Diabetes Short-Term Complication Admission Rate⁶¹	23.65	24.67	23.11	19.57	N/A
PQI-05: COPD or Asthma in Older Adults Admission Rate⁵⁹	89.33	91.45	59.24	39.84	N/A
PQI-08: Heart Failure Admission Rate⁵⁹	44.18	44.60	39.60	32.70	N/A
PQI-15: Asthma in Younger Adults Admission Rate⁵⁹	5.47	5.36	3.68	2.56	N/A

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⁶⁰Recognizing providers face challenges in reporting this measure, North Carolina Department of Health and Human Services is working with providers, plans, and the state’s Health Information Exchange (NC HealthConnex) to implement a strategy to improve data quality and reporting.

⁶¹ These rates are displayed per 100,000 members and do not represent a percentage rate. Lower PQI scores are better.

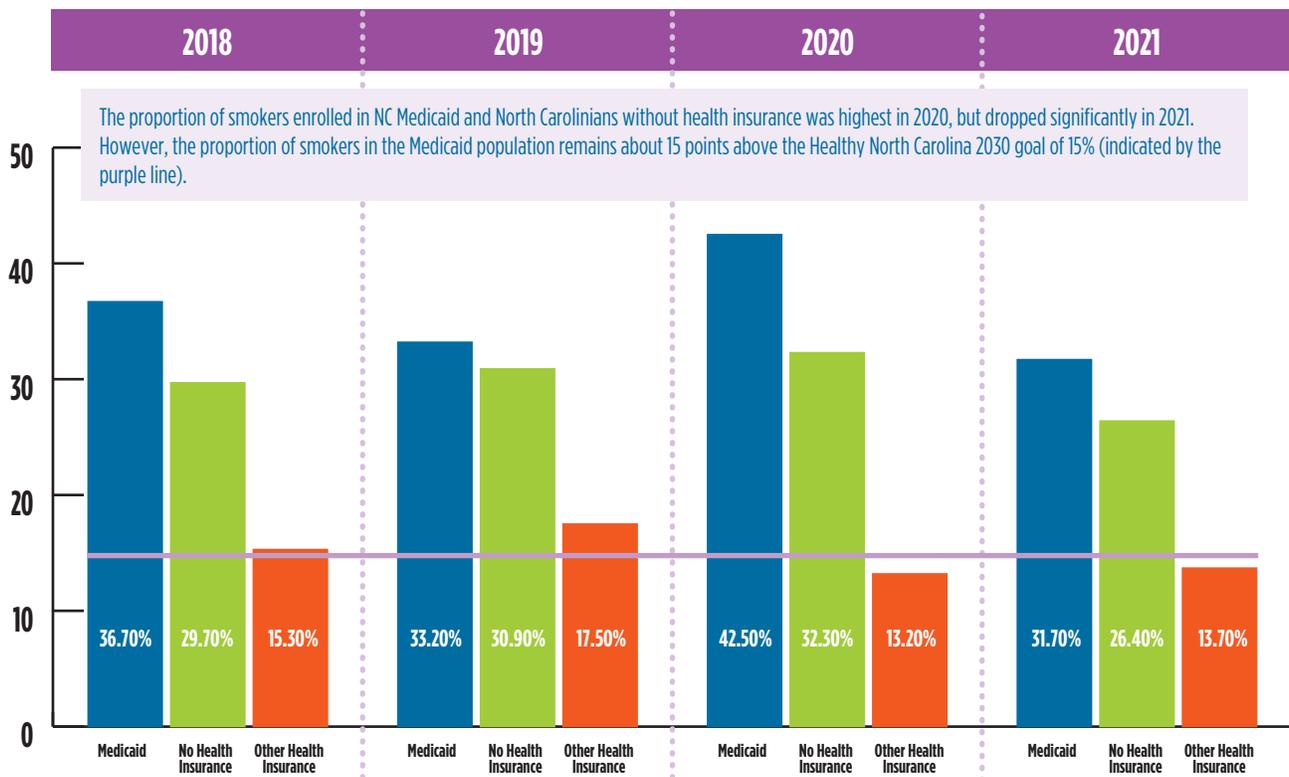
Goal 5: Work with Communities to Improve Population Health

NC Medicaid envisions health plans serving as active partners in improving community health and anticipates that many health plan activities will help advance population health goals set forth in the [Healthy North Carolina 2030](#) plan, including addressing opioid misuse, tobacco use, and obesity. In line with this vision, the NCDHHS has identified several public health objectives where health plan engagement will be critical.

Tobacco Use

Chart 23 shows current rates of smoking in North Carolina.⁶² While these rates have fallen, they are still well above the [Healthy North Carolina 2030](#) target of 15%, with the exception of those who have other health insurance (not NC Medicaid).⁶³ Efforts to reduce smoking and tobacco use may also improve North Carolina's birth outcomes, as smoking during pregnancy can lead to preterm birth and low birth weight.⁶⁴ NC Medicaid has incorporated the [QuitlineNC](#) and requirements for a Tobacco Cessation Action Plan into contracts with health plans.

Chart 23. Percent of Adults Who Are Current Smokers – This chart illustrates, for 2018 through 2021, the percent of North Carolina adults by insurance type who indicated they were current smokers. Lower rates indicate fewer smokers.



⁶² BRFSS defines "current smoker" as an adult over the age of 18 who has smoked at least 100 cigarettes in their lifetime and currently smokes on at least some days. BRFSS data are self-reported survey data based on a random sample and all estimates are subject to sample errors. As such, 95 percent intervals for all rates based on BRFSS data are available here: <https://schs.dph.ncdhhs.gov/data/brfss/2021>

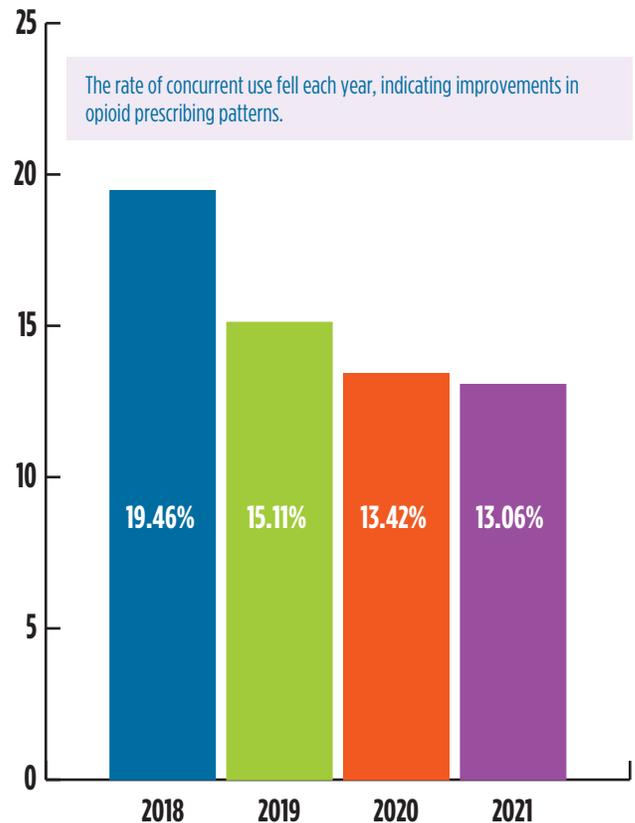
⁶³ *Healthy North Carolina 2030: A Path Toward Health*. North Carolina Institute of Medicine. January 2020. Accessed May 23, 2023. <https://nciom.org/healthy-north-carolina-2030>.

⁶⁴ *Smoking During Pregnancy*. Centers for Disease Control and Prevention. Updated April 28, 2020. Accessed May 23, 2023. https://www.cdc.gov/tobacco/basic_information/health_effects/pregnancy/index.htm

Opioid Misuse

In the last decade, the opioid epidemic has taken a significant toll on North Carolina's communities. In 2021, an average of 11 North Carolinians died each day from a drug overdose and there were over 15,000 ED visits related to drug overdose.⁶⁵ Since 2010, the rate of opioid-related deaths in North Carolina has more than tripled.⁶⁶ Opioid prescribing patterns can exacerbate trends in both opioid overdoses and opioid-related deaths. For example, concurrent use of opioids and benzodiazepines can place individuals at increased risk of potentially fatal respiratory depression.⁶⁷ NC Medicaid is an active partner in the NCDHHS' [Opioid and Substance Use Action Plan \(OSUAP\)](#). As illustrated in Chart 24, NC Medicaid's pharmacy policy changes have led to improvement in opioid prescribing patterns over the last four years.

Chart 24. The percent of NC Medicaid beneficiaries who received and filled both an opioid and a benzodiazepine prescription during the respective year, with at least one day overlap in the prescriptions (*Concurrent Use of Prescription Opioids and Benzodiazepines*) [↗](#)
Lower percentages are better on this measure.



⁶⁵ North Carolina Opioid Action Plan Data Dashboard 2021. NCDHHS. Accessed May 23, 2023. <https://www.ncdhhs.gov/opioid-and-substance-use-action-plan-data-dashboard>.

⁶⁶ North Carolina Opioid Summary. National Institute on Drug Abuse. Updated April 2019. Accessed May 23, 2023. <https://nida.nih.gov/sites/default/files/21978-north-carolina-opioid-summary.pdf>

⁶⁷ Concurrent Use of Opioids and Benzodiazepines in a Medicare Part D Population. The Centers for Medicaid and Medicare Services. May 12, 2016. Accessed May 23, 2023. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/Concurrent-Use-of-Opioids-and-Benzodiazepines-in-a-Medicare-Part-D-Population-CY-2015.pdf>

Summary of Performance for Working with Communities to Improve Population Health

Table 6 outlines select measures identified to support Goal 5. Performance on these measures is mixed. For a more detailed description of each measure included in the table, see [Appendix A](#).

Table 6: Summary of Performance for Goal 5 - Work with Communities to Improve Population Health

Measure Name	2018 Rates %	2019 Rates %	2020 Rates %	2021 Rates %	Comparison to 2022 National Median
Concurrent use of Prescription Opioids and Benzodiazepines (<i>lower is better</i>)	19.46	15.11	13.42	13.06	N/A
Use of Opioids at High Dosage in Persons Without Cancer (<i>lower is better</i>)	8.09	8.09	8.19	7.67	N/A
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents⁶⁸					
Total BMI Percentile Documentation	38.44	42.56	44.04	29.07	★
Total Counseling for Nutrition	17.93	21.06	24.09	15.70	★
Total Counseling for Physical Activity	2.23	5.20	7.83	6.76	★
Medical Assistance with Smoking and Tobacco Use Cessation⁵²					
Advising Smokers and Tobacco Users to Quit ⁶⁹	72.20	77.90	—	88.10	★★★
Discussing Cessation Medications	44.40	48.10	—	61.70	★★★
Discussing Cessation Strategies	47.20	49.00	—	55.20	★★★

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Aim 3: Smarter Spending

Goal 6: Pay for Value

NC Medicaid is committed to paying for value rather than volume, incentivizing innovation, and ensuring appropriate care.

Avoidable and Preventable Utilization

Potentially avoidable utilization (PAU) is defined as hospital care that is unplanned and can be prevented through improved care, care coordination, or effective community-based care.⁷⁰ To assess PAU, NC Medicaid looks at hospital readmission rates and performance on key PQI and PDI measures.

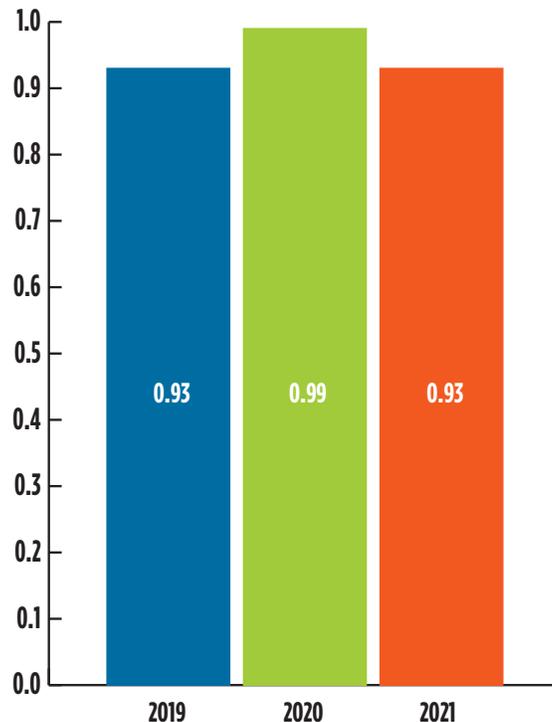
⁶⁸North Carolina's performance on this measure may be affected by billing documentation as not all providers document such services consistently.

⁶⁹The reported rates for Medical Assistance with Smoking and Tobacco Use Cessation are results from NC Medicaid's CAHPS survey. National rates are from 2022 Quality Compass benchmarks.

⁷⁰As defined by Maryland Health Services Cost Review Commission.

A “readmission” occurs when a patient is discharged from the hospital and then admitted back into the hospital within a short period of time. A high rate of patient readmissions may indicate inadequate quality of care in the hospital and/or a lack of appropriate post-discharge planning and care coordination. Unplanned readmissions are associated with increased mortality and higher health care cost.⁷¹ Readmission rates (and the associated spending) can be addressed through high-quality transition and aftercare efforts, including ensuring beneficiaries have follow-up primary care and specialist visits as well as appropriate medication reconciliation and management. As shown in Chart 25, NC Medicaid rates indicated that there were fewer readmissions than expected.⁷²

Chart 25. The ratio of actual (observed) readmissions in relation to the risk-adjusted (expected) readmissions for any diagnosis within 30 days for beneficiaries 18 to 64 years of age (Plan All Cause Readmissions (Observed-to-Expected Ratio)) 
Lower rates are better on this measure.



Summary of Performance for Smarter Spending

The measures in Table 7 include a series of PQI and PDI indicators used to measure potentially avoidable inpatient hospitalizations for adults and children, respectively. The rates for these measures are calculated per 100,000 members instead of percentages. A lower rate for these measures indicates better performance.

NC Medicaid has shown decreasing trends for potentially avoidable utilization for COPD, asthma, heart failure, urinary tract infection, and gastroenteritis admissions. While adult diabetes admission rates are declining, pediatric rates resulting from short-term complications have shown a slight increase.

In every category, some utilization could have been avoided with improved access to high quality primary care and outpatient therapies, while some utilization may be attributed more to disease state and other complicating factors. In addition, individuals captured in these measures result from small sample sizes, leading to variance in the rates.

⁷¹ Boutwell, A., F. Griffin, S. Hwu, D. Shannon. 2009. *Effective Interventions to Reduce Rehospitalizations: A Compendium of 15 Promising Interventions*. Cambridge, MA. Institute for Healthcare Improvement.

⁷² According to NCQA, the observed rate and predicted probability is used to calculate a calibrated observed-to-expected ratio that assesses whether plans had more, the same or less readmissions than expected, while accounting for incremental improvements across all plans over time. The observed-to-expected ratio is multiplied by the readmission rate across all health plans to produce a risk-standardized rate which allows for national comparison.

For these reasons, NC Medicaid will track these measures alongside measures related to appropriate control of specific chronic conditions. NC Medicaid will not use these measures in determining how individual hospitalizations or ED visits should be managed at this time. Instead, NC Medicaid will track these measures alongside measures related to appropriate control of specific chronic conditions over time, to understand general trends and identify special and common cause variations.

For a more detailed description of each measure included in the table, see [Appendix A](#).

Table 7: Goal 6 - Pay for Value: Potentially Avoidable Hospitalizations (Lower Rates are Better)

Measure Name	2018 Rates	2019 Rates	2020 Rates	2021 Rates	Comparison to 2022 National Median
Children					
PDI-14: Asthma Admission Rate ⁷³	98.18	86.23	34.35	58.06	N/A
PDI-15: Diabetes Short-Term Complications Admission Rate ⁷¹	26.96	30.46	41.16	46.22	N/A
PDI-16: Gastroenteritis Admission Rate ⁷¹	21.27	22.73	11.94	13.58	N/A
PDI-18: Urinary Tract Infection Admission Rate ⁷¹	17.14	19.19	14.76	16.68	N/A
Adults					
PQI-01: Diabetes Short-Term Complication Admission Rate ⁷¹	23.65	24.67	23.11	19.57	N/A
PQI-05: COPD or Asthma in Older Adults Admission Rate ⁷¹	89.33	91.45	59.24	39.84	N/A
PQI-08: Heart Failure Admission Rate ⁷¹	44.18	44.60	39.60	32.70	N/A
PQI-15: Asthma in Younger Adults Admission Rate ⁷¹	5.47	5.36	3.68	2.57	N/A
Plan All-Cause Readmissions (Observed-to-Expected Ratio)	–	0.93	0.99	0.93	★ ★ ★

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⁷³ These rates are displayed per 100,000 members and do not represent a percentage rate. Lower scores are better.

LOOKING FORWARD

NC Medicaid recognizes the importance of continuous quality improvement in advancing population health outcomes and health equity. NC Medicaid will continue to assess progress toward its quality goals, hold health plans accountable for meeting goals, and refine quality goals, objectives, and measures to drive continued improvement in the greatest areas of opportunity and need.

Quality Improvement

NC Medicaid is engaged in a number of activities to improve quality measurement and performance. These include the following:

- The NCDHHS required the Standard Plans to conduct Performance Improvement Projects (PIPs) to improve rates of childhood immunizations, improve timeliness of prenatal and postpartum care, and decrease the percent of adults with Type 1 or Type 2 diabetes that had poor control of diabetes. Additionally, each Standard Plan conducted a nonclinical PIP topic for validation. Plans selected a non-clinical PIP topic to complete quality improvement interventions meaningful to their unique enrollees. Two plans focused on improving performance for Care Needs Screening. One plan focused on the Provider Experience Survey, another on tobacco cessation, and the last on access to preventive/ambulatory health services (AAP).
- The NCDHHS may encourage plans to perform beyond compliance thresholds through a withhold program, in which a portion of each plan's capitation rate is withheld and paid when the plan meets reasonably achievable performance targets on priority measures. More information about the Withhold program can be found in the [Tech Specs](#). The NCDHHS has identified the following quality measures to be subject to withholds in the future:⁷⁴
 - *Childhood Immunization Status—Combination 10.*
 - *Prenatal and Postpartum Care.*
 - *Rate of Screening for Health-Related Resource Needs (HRRN).*
- Regarding diabetes care, the NCDHHS is working with providers, health plans, and NC HealthConnex to capture information on whether Hemoglobin A1c levels (which show average blood sugar levels) are within the target range for patients with diabetes.
- The PMH program was established by a State Plan Amendment in 2001 to improve quality of care and health outcomes for pregnant NC Medicaid members and their infants. The program, led by CCNC, has seen birth outcomes and quality of care steadily improve through provider support, screening for high-risk pregnancies, evidence-based care, and care management.⁷⁵ To ensure continued progress toward improved maternal health and birth outcomes, the NCDHHS continues to monitor timeliness of perinatal care and explore ways to improve outcomes through the PMP and the CMHRP program.

⁷⁴ For Year 1 of the Withholds Program this measure is pay for reporting.

⁷⁵ Pregnancy Medical Home: Maternal & Infant Outcomes in the Medicaid Population. Community Care of North Carolina. January 2023. Accessed May 23, 2023. <https://www.communitycarenc.org/population-management/pregnancy-home>

- NC Medicaid was an active partner on the *Perinatal System of Care Task Force* and the *Maternal Health Task Force*, convened by the North Carolina Institute of Medicine in collaboration with the Division of Public Health.⁷⁶ The task forces focused on addressing potential barriers and other system issues that impact access to care. Through both initiatives, NC Medicaid will analyze drivers of birth and maternal health outcomes and identify interventions for change with health plans and providers.

Transparency

NC Medicaid will report quality performance publicly wherever feasible and appropriate, as an important step in promoting high-quality care and encouraging stakeholder awareness of NC Medicaid's quality performance. One way that NC Medicaid will report on performance is by publishing reports to apprise the public of performance and promote transparency in the overall quality of the NC Medicaid system. These reports will include:

Primary Purpose to Inform Member Choice

- **Annual Quality Measures at State and Health Plan Levels.** In future versions of this report, NC Medicaid will share health plan-level rates for various quality measures to facilitate comparison among plans. Beneficiaries and the public should have access to a reliable report on how plans are performing.
- **Quality Rating System (QRS).** NC Medicaid will develop a QRS platform for beneficiaries to gauge health plan performance in order to make decisions about plan selection.

Primary Purpose to Inform State and Federal Partners of Health Plan Performance

- **Health Equity Report.** NC Medicaid will assess disparities in care and outcomes across demographic groups and publish a report summarizing areas of care in which disparities have improved, persisted, or developed.
- **Provider Experience Survey Results.** NC Medicaid, in partnership with the Sheps Center for Health Services Research fields a survey to providers assessing their satisfaction with the health plan(s) with which they have contracted. NC Medicaid publishes overall satisfaction rates and other findings from this survey.⁷⁷
- **Member Experience as Reflected by CAHPS Survey Results.** NC Medicaid, in partnership with a third party, fields the CAHPS Survey to assess patient experience in receiving care. NC Medicaid publishes findings from this
- **Access to Care Report.** NC Medicaid, in partnership with a third party, will issue a report summarizing available, perceived, and realized access to care for each health plan's members.

⁷⁶ *Task Force on Maternal Health.* North Carolina Institute of Medicine. Accessed May 23, 2023. <https://nciom.org/task-force-on-maternal-health>.

Perinatal System of Care. North Carolina Institute of Medicine. Accessed May 23, 2023. <https://nciom.org/perinatal-system-of-care>

⁷⁷ *Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill. Baseline Medicaid Provider Experience Survey Report.* North Carolina Department of Health and Human Services. April 22, 2022. Accessed May 23, 2023. <https://medicaid.ncdhhs.gov/baseline-medicaid-provider-experience-survey-reportapril2022/download?attachment>

Performance Measures

Each year the NCDHHS will release the lists of measures NC Medicaid is tracking and the subsets of measures that serve as accountability sets for health plans. NC Medicaid will ask for public feedback, in addition to feedback from the Quality Subgroup of the Medical Care Advisory Committee and NC Medicaid's internal Quality and Health Outcomes Committee.⁷⁸

NC Medicaid will regularly evaluate its measures to drive progress aligned with the Quality Strategy. Over time, NC Medicaid expects to adopt or retire measures based on industry standards in an effort to capture optimal care and accurately measure quality. The NCDHHS has developed a performance benchmarking approach for use in quality measurement. Using this approach, the NCDHHS sets benchmarks for each measure (except for measure of contraceptive care) at 105% of prior year line-of-business overall performance for the measure (or 95% for measures for which a lower rate indicates better performance). This target represents a 5% relative increase (or decrease) in performance rate. If performance has worsened during the prior year, the previous benchmark will be carried forward rather than adopting a new, less rigorous, standard. For more information on the NCDHHS' targeting methodology, see the [Tech Specs](#).

Value-based Payment

To ensure that payments to providers are increasingly focused on population health outcomes, appropriateness of care, and other measures of value, NC Medicaid has encouraged the accelerated adoption of value-based payment arrangements between health plans and providers in lieu of traditional fee-for-service arrangements.

NC Medicaid will increasingly tie payment to value and has developed strategic interventions that promote new care delivery models (such as the [AMH](#) program), drive payment innovations, and address health-related resource needs. Overall, the goal is for NC Medicaid to “buy health,” by focusing payment on the primary drivers of health and rewarding health outcomes at the provider and health plan levels. By doing so, NC Medicaid hopes to see lower rates of avoidable spending (inpatient utilization and readmissions), better beneficiary outcomes, and smarter spending. One area of significant activity on this topic is North Carolina's [State Transformation Collaborative](#). Launched in February 2023, the [State Transformation Collaborative](#) works to align public and private stakeholders across the state on health system strategies focused on rewarding better health outcomes, integrating physical and behavioral health, and investing in non-medical interventions aimed at reducing costs.

Consumer & Provider Satisfaction

Results for adult and child CAHPS when compared to the NCQA national medians were mixed. Items measuring access (i.e., *Getting Needed Care and Getting Care Quickly*) performed better for both the adult and child populations. The adult population on several measures performed lower than the national medians whereas the child population only performed lower on *Customer Service*. NC Medicaid recognizes the importance of continued performance monitoring on these measures during and after the transition to managed care – in particular, analyzing rates over time on the measures with lower performance will be instrumental in identifying priority areas to focus improvement plans. In addition to future consumer satisfaction surveys conducted in the new managed care environment, the provider experience surveys will also serve as a leading indicator for quality improvement for health plans.

⁷⁸ *Medical Care Advisory Committee Subcommittee Meetings. Providers and Systems. North Carolina Department of Health and Human Services. Accessed May 23, 2023. <https://medicaid.ncdhhs.gov/meetings-notices/committees-and-work-groups/medical-care-advisory-committee/mcac-subcommittee-meetings>*

APPENDIX A: LIST OF PERFORMANCE MEASURES

NC Medicaid uses select performance measures for Health Plan quality reporting, quality improvement programs, and performance improvement projects. Measures included in this report are listed below in alphabetical order.

Measure	Measure Steward	Description
Ambulatory Care: ED Visits	CMS	This measure reports state performance on the rate of ED visits per 1,000 beneficiary months for children up to age 19. Lower rates are better on this measure.
Antidepressant Medication Management	NCQA	Adults 18 years of age and older with a diagnosis of major depression who were newly treated with antidepressant medication and remained on their antidepressant medications. <i>Effective Acute Phase Treatment:</i> Adults who remained on an antidepressant medication for at least 84 days (12 weeks). <i>Effective Continuation Phase Treatment:</i> Adults who remained on an antidepressant medication for at least 180 days (6 months).
Asthma Medication Ratio	NCQA	Adults and children 5–64 years of age who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year.
Breast Cancer Screening	NCQA	Women 50–74 years of age who had at least one mammogram to screen for breast cancer in the past two years.
Cervical Cancer Screening	NCQA	Women who were screened for cervical cancer using any of the following criteria: <ul style="list-style-type: none"> • Women 21–64 years of age who had cervical cytology performed every 3 years. • Women 30–64 years of age who had cervical high-risk human papillomavirus (hrHPV) testing performed within the last 5 years. • Women 30–64 years of age who had cervical cytology/high-risk human papillomavirus (hrHPV) testing within the last 5 years.
Child and Adolescent Well-Care Visits	NCQA	Members ages 3–21 who had at least one comprehensive well-care visit with a primary care physician or an OB/GYN during the measurement year.
Childhood Immunization Status – Combination 10	NCQA	Children who had four diphtheria, tetanus and acellular pertussis; three polio; one measles, mumps and rubella; three haemophilus influenza type B; three hepatitis B; one chicken pox; four pneumococcal conjugate; one hepatitis A; two or three rotavirus; and two influenza vaccines by their second birthday.
Chlamydia Screening in Women	NCQA	Women 16–24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.

Measure	Measure Steward	Description
Comprehensive Diabetes Care—Hemoglobin A1C (HbA1c) Testing	NCQA	Adults 18–75 years of age with diabetes (type 1 and type 2) who received HbA1c testing during the measurement year.
Concurrent Use of Prescription Opioids and Benzodiazepines	PQA/ National Quality Forum (NQF)	Adults 18 years and older with concurrent use of prescription opioids and benzodiazepines for 30 or more cumulative days. Lower rates are better on this measure.
Consumer Satisfaction (Child and Adult)	CAHPS	<p>CAHPS surveys ask consumers and patients to report on and evaluate their experiences with health plans, providers, and healthcare facilities.</p> <p><i>Composite Measures</i> (combine two or more related survey items)</p> <ul style="list-style-type: none"> • Getting needed care. • Getting care quickly. • How well doctors communicate. • Health plan customer service. <p><i>Rating Measures</i> (reflect respondents' ratings on a scale of 0 to 10)</p> <ul style="list-style-type: none"> • Rating of health plan. • Rating of health care. • Rating of personal doctor. • Rating of specialist seen most often.
Contraceptive Care-Postpartum Women	NCQA	<p>Women ages 15 to 44 who had a live birth, and among those, the percent that:</p> <ul style="list-style-type: none"> • Were provided a most effective or moderately effective method of contraception within 3 and 60 days of delivery. • Were provided a long-acting reversible method of contraception within 3 and 60 days of delivery.
Diabetes Screening for People with Schizophrenia or Bipolar Disorder	NCQA	Adults ages 18–64 years with schizophrenia or bipolar disorder, who were dispensed an antipsychotic medication and had a diabetes screening test during the measurement year.
Follow-Up After ED Visit for Alcohol and Other Drug (AOD) Abuse or Dependence (All Ages)	NCQA	<p>Assesses ED visits for members 13 years of age and older with a principal diagnosis of AOD abuse or dependence, who had a follow up visit for AOD. Two rates are reported:</p> <ul style="list-style-type: none"> • ED visits for which the member received follow-up within 30 days of the ED visit (31 total days). • ED visits for which the member received follow-up within 7 days of the ED visit (8 total days).
Follow-Up After ED Visit for Mental Illness (All Ages)	NCQA	<p>Assesses ED visits for adults and children 6 years of age and older with a diagnosis of mental illness or intentional self-harm and who received a follow-up visit for mental illness. Two rates are reported:</p> <ul style="list-style-type: none"> • Follow-up within 7 days. • Follow-up within 30 days.

Measure	Measure Steward	Description
Follow-Up After Hospitalization for Mental Illness (All Ages)	NCQA	The percent of inpatient discharges for a diagnosis of mental illness or intentional self-harm among patients 6 years and older that resulted in follow-up care with a mental health provider. Two rates are reported: <ul style="list-style-type: none"> Follow-up within 7 days. Follow-up within 30 days.
Follow-Up Care for Children Prescribed ADHD Medication	NCQA	Two rates of this measure assess follow-up care for children prescribed an ADHD medication: <p><i>Initiation Phase:</i> Assesses children between 6 and 12 years of age who were diagnosed with ADHD and had one follow-up visit with a practitioner with prescribing authority within 30 days of their first prescription of ADHD medication.</p> <p><i>Continuation and Maintenance Phase:</i> Assesses children between 6 and 12 years of age who had a prescription for ADHD medication and remained on the medication for at least 210 days, and had at least two follow-up visits with a practitioner in the 9 months after the Initiation Phase.</p>
Immunizations for Adolescents-Combination 2	NCQA	Adolescents who had one dose of meningococcal conjugate vaccine, TDAP/TD vaccine, and have completed the HPV vaccine series by their 13th birthday.
Initiation and Engagement of AOD Abuse or Dependence Treatment	NCQA	<i>Initiation of AOD Treatment:</i> Adults and adolescents 13 years of age and older with a new episode of AOD dependence who initiated treatment within 14 days of diagnosis (through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth or medication-assisted treatment (MAT)) <p><i>Engagement of AOD Treatment:</i> Adolescents and adults who initiated treatment and had two or more additional AOD services or MAT within 34 days of the initiation visit.</p>
Medical Assistance with Smoking and Tobacco Use Cessation	NCQA	Adults 18 years of age and older who are current smokers or tobacco users and who: <ul style="list-style-type: none"> Received cessation advice during the measurement year; or Discussed or were recommended cessation medications during the measurement year; or Discussed or were provided cessation methods or strategies during the measurement year.
Low Birth Weight	NCDHHS	The Low Birth Weight Measure is a modified version of the Live Births Weighing <2,500 grams measure (NQF #1382). This modified measure assesses rates of low birth weight (<2,500 grams) and very low birth weight (<1500 grams) at the plan level, considering only singleton, live birth deliveries because multiple gestations are more likely to have low birth weight for reasons unrelated to health care delivery.

Measure	Measure Steward	Description
Plan All-Cause Readmissions	NCQA	Assesses the rate of adult acute inpatient and observation stays that were followed by an unplanned acute readmission for any diagnosis within 30 days after discharge among commercial (18 to 64), Medicaid (18 to 64) and Medicare (18 and older) health plan members. As well as reporting observed rates, NCQA also specifies that plans report a predicted probability of readmission to account for the prior and current health of the member, among other factors. A separate readmission rate for hospital stays discharged to a skilled nursing facility among members aged 65 and older is reported for Medicare plans. The observed rate and predicted probability is used to calculate a calibrated observed-to-expected ratio that assesses whether plans had more, the same or less readmissions than expected, while accounting for incremental improvements across all plans over time. The observed-to-expected ratio is multiplied by the readmission rate across all health plans to produce a risk-standardized rate which allows for national comparison.
Prenatal and Postpartum Care	NCQA	<i>Timeliness of Prenatal Care:</i> The percent of deliveries that received a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization. <i>Postpartum Care:</i> The percent of deliveries in which women had a postpartum visit on or between 7 and 84 days after delivery.
Use of First Line Psychosocial Care for Children and Adolescents on Antipsychotics	NCQA	Children and adolescents ages 1-17 who had a new prescription for an antipsychotic medication, but no US Food and Drug Administration primary indication for antipsychotics and had documentation of psychosocial care as first-line treatment.
Use of Opioids at High Dosage in Persons Without Cancer	Pharmacy Quality Alliance	The percent of individuals ≥ 18 years of age who received prescriptions for opioids with an average daily dosage of ≥ 90 morphine milligram equivalents (MME) over a period of ≥ 90 days. Lower rates are better on this measure.
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents	NCQA	Assesses children and adolescents 3-17 years of age who had an outpatient visit with a primary care practitioner or OB/GYN during the measurement year and had evidence of: Body mass index (BMI) percentile documentation, counseling for nutrition, and counseling for physical activity.
Well-Child Visits in the First 30 Months of Life	NCQA	<i>First 15 Months:</i> Percent of children who received six or more well-child visits in the first 15 months. <i>15 to 30 Months:</i> Percent of children 15 to 30 months of age who had two or more well-child visits
Prevention Quality Indicators (PQIs) and Pediatric Quality Indicators (PDIs)		
PDI-14: Asthma Admission Rate	AHRQ	Admissions with a principal diagnosis of asthma per 100,000 members, ages 2 through 17 years. Excludes cases with a diagnosis code for cystic fibrosis and anomalies of the respiratory system, obstetric admissions, and transfers from other institutions.
PDI-15: Diabetes Short-Term Complications Admission Rate	AHRQ	Admissions for a principal diagnosis of diabetes with short-term complications (ketoacidosis, hyperosmolarity, or coma) per 100,000 members, ages 6 through 17 years. Excludes obstetric admissions and transfers from other institutions.

Measure	Measure Steward	Description
Prevention Quality Indicators (PQIs) and Pediatric Quality Indicators (PDIs)		
PDI-16: Gastroenteritis Admission Rate	AHRQ	Admissions for a principal diagnosis of gastroenteritis, or for a principal diagnosis of dehydration with a secondary diagnosis of gastroenteritis per 100,000 members, ages 3 months to 17 years. Excludes cases transferred from another facility, cases with gastrointestinal abnormalities or bacterial gastroenteritis, and obstetric admissions.
PDI-18: Urinary Tract Infection Admission Rate	AHRQ	Admissions with a principal diagnosis of urinary tract infection per 100,000 members, ages 3 months to 17 years. Excludes cases with kidney or urinary tract disorders, cases with a high- or intermediate risk immunocompromised state (including hepatic failure and transplants), transfers from other institutions, and obstetric admissions.
PQI-01: Diabetes Short-Term Complications Admission Rate	AHRQ	Admissions for a principal diagnosis of diabetes with short-term complications (ketoacidosis, hyperosmolarity, or coma) per 100,000 members, ages 18 years and older. Excludes obstetric admissions and transfers from other institutions.
PQI-05: Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate	AHRQ	Admissions with a principal diagnosis of COPD or asthma per 100,000 members, ages 40 years and older. Excludes obstetric admissions and transfers from other institutions.
PQI-08: Heart Failure Admission Rate	AHRQ	Admissions with a principal diagnosis of heart failure per 100,000 members, ages 18 years and older. Excludes cardiac procedure admissions, obstetric admissions, and transfers from other institutions.
PQI-15: Asthma in Younger Adults Admission Rate	AHRQ	Admissions for a principal diagnosis of asthma per 100,000 member months, ages 18 to 39 years. Excludes admissions with an indication of cystic fibrosis or anomalies of the respiratory system, obstetric admissions, and transfers from other institutions.



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